Computerized Patient Record System (CPRS)

TECHNICAL MANUAL

Version 1.0

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Department of Veterans Affairs

Technical Services

Computerized Patient Record System Product Line

Revision History

Date	Pages	Change
6/28/2000	2, 101, 105	Changed references to drug-drug interaction to critical drug interaction.
6/29/2000	5	Changed example of DGPM movement sequence.
7/24/2000	2	Added a number of new notifications including Flagged orderable items expiring from patch 0R *3*88.
	122-131	Updated appendix with new material from patches
11/30/2000	18, 76-83	Added functions for Unsigned Orders Search in CPRS Configuration (Clin Coord).

Table of Contents

Introduction

The Computerized Patient Record System (CPRS) V. 1.0 is a Veterans Health Information Systems and Technology Architecture (VISTA) software application. CPRS enables clinicians, nurses, clerks, and others to enter, review, and continuously update all information connected with any patient.

As part of its mission to provide high quality healthcare for America's veterans, the Veterans Health Administration (VHA) has made the development of a computerized patient record a major long-term goal. New information needs are emerging as VHA continues to shift into a primary care, ambulatory healthcare delivery model. In the new clinical information environment, all information relevant to treating any given patient will be available in such a way that it is secure, yet accessible to healthcare providers, clinical and management decision-makers, educators, and researchers on a need-to-know basis.

With CPRS, care providers can quickly flip through electronic "pages" of the chart to add new orders, review or add problems, write progress notes, or see results. Alerts, notifications, cautions, warnings, advanced directives, future appointments, demographic data, medications, and orders are all available. Order entry now includes quick orders, order sets, and order checking.

Purpose and Contents of this Manual

This manual primarily describes technical information about packages installed with CPRS. Packages that integrate with CPRS, but were released prior to the CPRS installation (such as Dietetics, Lab patches, and Radiology), are described in their own package documentation. Pharmacy (Inpatient Meds and Outpatient Pharmacy) and Consult/Result Tracking are installed with CPRS, but have separate Technical and User Manuals. See those manuals for set-up instructions, lists of routines and files, and other technical and user information.

Related Manuals

Computerized Patient Record System V. 1.0 Clinician Guide (GUI)

Computerized Patient Record System V. 1.0 Clinician Guide (LM)

Computerized Patient Record System V. 1.0 Setup Guide

Computerized Patient Record System V. 1.0 Technical Manual

Differences between OERR 2.5 and CPRS 1.0

OE/RR 2.5	CPRS 1.0
1- Screen-like interface	List Manager interface
2- "Backdoor" packages controlled ordering dialogs	CPRS controls all the ordering dialogs
3- Multiple patient selection available	Only single patient selection is available except through the Results Reporting Menu
4- Select an action, then an item	You now select an item then an action
5- Navigation of electronic record took place through a menu structure of options and protocols	The List Manager version allows navigation through the electronic record by way of actions that are equivalent to the tabs of a chart; GUI version allows navigation by clicking on tabs
6- Outpatient Pharmacy ordering not available through OE/RR	Outpatient Pharmacy is now available
7- Consults resulting and tracking not available through OE/RR	Consults resulting available through TIU
8- No access to Discharge Summary	Discharge Summary is now available thru CPRS
9- No time-delay ordering capability	Time-delayed orders now available (admission, discharge, and transfer)
10- Actions available for orders: • Discontinue Orders • Edit Orders • Hold/Unhold Orders • Flag/Unflag Orders • Renew Orders • Comments for Ward/Clinic • Signature on Chart • Results Display • Long/Short Order Format • Detailed Order Display • Print Orders • Print Labels • Requisition Print • Print Chart Copy • Print Service Copy • Accept Orders	More actions available for orders: • Copy • Discontinue • Change • Hold • Release Hold • Flag • Unflag • Renew • Verify • Ward Comments • Sign/On Chart • Results • Details • Print List and Print Screen (List Manager actions) • Print Labels

	• Print Requisitions • Print Chart Copies • Print Service Copies • Print Work Copies

11- Duplicate order was the only order check	Twenty-one Order checks now available
	
	`ALLERGY-CONTRAST MEDIA INTERAC`
	
	`ALLERGY-DRUG INTERACTION`
	
	`AMINOGLYCOSIDE ORDERED`
	
	`BIOCHEM ABNORMALITY FOR CONTRA`
	
	`CLOZAPINE APPROPRIATENESS`
	
	`CRITICAL DRUG INTERACTION`
	
	`CT & MRI PHYSICAL LIMITATIONS`
	
	`DISPENSE DRUG NOT SELECTED`
	
	`DUPLICATE DRUG CLASS ORDER`
	
	`DUPLICATE DRUG ORDER`

OE/RR 2.5	CPRS 1.0
11- Order checks, cont'd	DUPLICATE ORDER ERROR MESSAGE ESTIMATED CREATININE CLEARANCE GLUCOPHAGE-CONTRAST MEDIA LAB ORDER FREQ RESTRICTIONS MISSING LAB TESTS FOR ANGIOGRA ORDER CHECKING NOT AVAILABLE POLYPHARMACY RECENT BARIUM STUDY RECENT ORAL CHOLECYSTOGRAM RENAL FUNCTIONS OVER AGE 65
12- Twenty-three Notifications available	Forty-seven Notifications now available LAB RESULTS ORDER REQUIRES CHART SIGNATURE FLAG ORDER FOR CLARIFICATION ORDER REQUIRES ELEC SIGNATURE ABNORMAL LAB RESULTS (ACTION) ADMISSION UNSCHEDULED VISIT DECEASED PATIENT IMAGING PATIENT EXAMINED IMAGING RESULTS CONSULT/REQUEST RESOLUTION CRITICAL LAB RESULT (INFO) ABNORMAL IMAGING RESULTS IMAGING REQUEST CANCEL/HELD NEW SERVICE CONSULT/REQUEST SERVICE ORDER REQ CHART SIGN CONSULT/REQUEST CANCEL/HOLD NPO DIET MORE THAN 72 HRS FLAGGED OI RESULTS - INPT ORDERER-FLAGGED RESULTS DISCHARGE TRANSFER FROM PSYCHIATRY ORDER REQUIRES CO-SIGNATURE FLAGGED OI ORDER - INPT LAB ORDER CANCELED STAT ORDER STAT RESULTS DNR EXPIRING

	FREE TEXT
	MEDICATIONS EXPIRING
	UNVERIFIED MEDICATION ORDER
	NEW ORDER
	STAT IMAGING REQUEST
	URGENT IMAGING REQUEST
	IMAGING RESULTS AMENDED
	ORDER CHECK
	FOOD/DRUG INTERACTION
	ERROR MESSAGE
	CRITICAL LAB RESULTS (ACTION)
	ABNORMAL LAB RESULT (INFO)
	UNVERIFIED ORDER
	FLAGGED OI RESULTS - OUTPT
	FLAGGED OI ORDER - OUTPT
	DC ORDER
	CONSULT/REQUEST UPDATED
	FLAGGED OI EXPIRING - INPT
	FLAGGED OI EXPIRING - OUTPT
13- Processing action for notifications exported by OE/RR	The site can now control the processing action
14- Problem list available only outside OE/RR	Problem List now has a tab in CPRS
15- No patient data overview available	The Cover Sheet provides a clinical overview of the patient.

Implementation & Maintenance

See the *CPRS Setup Guide* for more detailed instructions about planning and setting up CPRS.

1. Summary of CPRS set-up

Options on the CPRS Configuration Menus (Clin Coord and IRM) let IRMS staff and Clinical Coordinators set and modify various parameters controlling the behavior of the package. These options are described in the following pages of this section.

- **After installation of CPRS, check CPRS parameters to ensure that they are all appropriate for your site (particularly Print parameters)**.

- **Set up Pharmacy (Inpatient and Outpatient) parameters**. (Pharmacy ADPAC). See the *CPRS Setup Guide* or the Pharmacy Technical Manuals for details.

- **Turn on Notifications**, using *Enable or Disable Notification System* [ORB3 SYSTEM ENABLE/DISABLE] on the Notification Mgt Menu on the CPRS Manager Menu.

- **Turn on Order Checking and set up its parameters**.

- **Link lab, radiology, and DNR terms used in order checking to local terms** using the option *Edit Site Local Terms* [OCX LOCAL TERM EDIT] on the Order Checking Management Menu.

- **Review and assign sequence numbers to protocols in the DGPM Movement Events field of the Protocol file.**

```
ITEM:      DGOERR NOTE                       SEQUENCE: 13    ─────
ITEM:      FHWMAS                            SEQUENCE: 14
ITEM:      LR70 MOVEMENT EVENT               SEQUENCE: 15
ITEM:      OCX ORDER CHECK PATIENT MOVE      SEQUENCE: 16
ITEM:      PSJ OR PAT ADT                    SEQUENCE: 19
ITEM:      ORU AUTOLIST                      SEQUENCE: 21
ITEM:      ORU REVIEW DELAYED ORDERS         SEQUENCE: 22
ITEM:      ORU PATIENT MOVMT                 SEQUENCE: 100
ITEM:      OR GUA EVENT PROCESSOR NOTASK     SEQUENCE: 999   ─────
```

this should have the lowest sequence #

this should have the highest sequence #

- **Assign menus and keys for all packages distributed with CPRS**, as described in the *CPRS Set-up Guide* or the Package Security Guide section of this manual and also the other packages' Technical Manuals.

• **Review patient and team lists** to ensure that they are what you will still use. Add or modify patient or team lists as needed, using options on the Patient/Team List menu.

• **Set up Consult/Request Tracking parameters and the Service/Section hierarchy**. See the *CPRS Setup Guide* or the *Consult/Request Tracking Technical Manual* for details.

• **Set up the GUI executable (install on client computers [PCs]).**

2. Patch OR*2.5*49

Patch OR*2.5*49—installed prior to CPRS to help prepare VAMCs for CPRS implementation—converts menus, orderable items, generic orders, and quick orders set up locally by sites currently using OE/RR 2.5. The Order Menu Management menu exported with Patch 49 is also on the CPRS Configuration Menu (Clin Coord) on the CPRS Management Menu, and can be used after CPRS is installed to create and edit CPRS orderable items, menus, quick orders, and order sets. Other components of CPRS (Pharmacy, Lab, Radiology, Consult/Request Tracking, etc.) run their own conversions.

Patch 49 begins the transition from the PROTOCOL file (#101) to new files that have been created to handle the ordering mechanism: ORDER DIALOG (#101.41), and ORDERABLE ITEMS (#101.43). Patch 49 installs the data dictionaries. When the patch is installed, these files are automatically populated.

The setup steps for patch 49 in preparation for CPRS include:

- using options on the Protocol Conversion menu to prepare for conversion of menus to the new CPRS files

- conversion of menus

- using options on the Menu Management Menu to create or modify menus, quick orders, order sets, etc.

Protocol Conversion

Review the Protocol File, using ORCM REVIEW PROTOCOLS on the Protocol Conversion Utilities menu.

Protocol Conversion Utilities

Option	Option Name	Description
Review protocol file	ORCM REVIEW PROTOCOLS	This option queues three tasks to examine the PROTOCOL (#101) file for potential problems that may occur with the conversion of protocols to the ORDER DIALOG (#101.41) file.
		In addition a task will be queued to examine the PACKAGE (#9.4) file for problems with the entries for packages that interface with CPRS.
		A report of each search will be printed to a selected device.
Convert Protocol Menus to Order Dialogs	ORCM CONVERT MENUS	This option converts "add order" protocol menus that are currently in use to the ORDER DIALOG (#101.41) file for use in CPRS. All items on the menus will be converted to this file as well.
		A mail message will be sent to the individual running the option regarding any protocols that could not be successfully converted.

Protocol Conversion Utilities, cont'd

Option	Option Name	Description
Locate protocols	ORCM FIND PROTOCOL	This option allows the Clinical Coordinator or IRM staff to see which protocols contain another protocol as an item. This option may be especially useful after the protocol conversion has completed. If one or more protocols must be recreated using the Order Menu Management tools, this option can be used to see where the recreated item should be replaced in the ORDER DIALOG (#101.41) file.
Estimate global growth for CPRS	ORCM ESTIMATE	This option estimateS the number of outpatient prescriptions that will be backfilled into the ORDER (#100) file upon installation of CPRS. This figure, along with the current number of entries in the ^OR global and the ^PSRX global, will be used to estimate the amount of global blocks that will be consumed by the installation of CPRS and the subsequent conversion of orders. NOTE: This is only an estimate. There are many variables that can affect the actual space consumption.
Order Menu Management ...	ORCM MGMT	Options on this menu can be used for editing and modifying options and menus for CPRS.

Checks/tasks that get triggered when using the option ORCM REVIEW PROTOCOLS.

Extended Action Order Set check

Patch OR*2.5*49 will not convert order sets to the ORDER DIALOG (#101.41) file in the proper sequence if the COLUMN WIDTH field is defined for the specific protocol. This will check all extended action protocols and report any with this problem. This is a common occurrence if an order set was created as a menu and then changed to an extended action protocol.

Corrective Action

Deletes the entry in the COLUMN WIDTH field of the listed protocols. This will not affect the protocol and will keep a problem from occurring when converted to file 101.41.

Namespace check

The conversion of protocols to the ORDER DIALOG (#101.41) file relies heavily on the national namespaces to convert quick orders. This check will identify protocols that belong to a national package, but begin with a namespace differing from that package.

Corrective action

For conversion of these quick orders to take place, the name must begin with the national namespace of the package to which it belongs.

Duplicate item check

Generic orders in CPRS can't use the same item within an order dialog more than once. This check looks at all dialog type protocols and listsany that have an item that is used more than one time in the ITEM multiple.

Corrective action

The duplicate item must be removed or replaced with a similar item with a different name.

Package file check

This check looks at your PACKAGE file and makes sure that the packages required by CPRS are present, have the correct prefixes, and are not duplicated.

Corrective Action

Due to the variability of problems and the significance of the PACKAGE (#9.4) file to proper V*IST*A functioning, the recommendation is to contact National VistA Support for assistance in correction of any problems.

Order Menu Management

See the Patch OR*2.5*49 Installation/Implementation Guide for further descriptions and examples of the options on the CPRS Order Menu Management menu.

Option Name	Menu Text	Description
ORCM ORDERABLES	Enter/edit orderable items	Lets you enter or edit generic order items.
ORCM PROMPTS	Enter/edit prompts	Lets you add or edit prompts for generic order dialogs.
ORCM ORDERS	Enter/edit generic orders	Lets you add or edit free-text orders.
ORCM QUICK ORDERS	Enter/edit quick orders	Lets you create or modify quick orders.
ORCM ORDER SETS	Enter/edit order sets	Lets you create or modify order sets.
ORCM ACTIONS	Enter/edit actions	Lets you enter or edit entry and exit actions for order dialogs.
ORCM MENU	Enter/edit order menus	Lets you modify the current order menus or create new ones for your site.
OR PARAM ADD MENU	Assign primary order menu	Lets you assign ordering menus (including ones you might have created through options here).
ORCM PROTOCOLS	Convert protocols	Lets you convert any protocols that didn't get automatically converted by the installation.
ORCM SEARCH/ REPLACE	Search/Replace Components	Lets you search for specific components on menus and replace them with new ones.

3. Setting CPRS Parameters

CPRS Parameters are set through the following menus and options:

- **CPRS Configuration Menu (Clin Coord)**

```
AU   Auto-DC Parameters [OR PARAM AUTODC]

AL   Allocate OE/RR Security Keys [ORCL KEY ALLOCATION]

KK   Check for Multiple Keys [OR PARAM SYSTEM]

DC   Edit DC Reasons [ORCL ORDER REASON]

GP   GUI Parameters ... [ORW PARAM GUI]

MI   Miscellaneous Parameters [OR PARAM ORDER MISC]

NO   Notification Mgmt Menu ... [ORB NOT COORD MENU]

OC   Order Checking Mgmt Menu ... [ORK ORDER CHK MGMT MENU]

MM   Order Menu Management ... [ORCM MGMT]

LI   Patient List Mgmt Menu ... [ORLP PATIENT LIST MGMT MENU]

FP   Print Formats [ORCL PRINT FORMAT]

PR   Print/Report Parameters ... [OR PARAM PRINTS]

RE   Release/Cancel Delayed Orders [ORC DELAYED ORDERS]

US   Unsigned Orders Search [OR UNSIGNED ORDERS]

EX   Set Unsigned Orders View on Exit [OR PARAM UNSIGNED ORDERS VIEW]

NA   Search Orders by Nature or Status [OR NATURE/STATUS ORDER SEARCH]
```

See the CPRS Set-up Guide for descriptions of these options.

- **CPRS Configuration (IRM)**

```
CPRS Clean-up Utilities Menu [ORE MGR]

ORMTIME Main Menu [ORMTIME MAIN]

Order Check Expert System Main Menu [OCX MAIN]

General Parameters Tools [XPAR MENU TOOLS]
```

- **Personal Preferences**

- **Nature of Order file**

- **Parameter options in packages related to CPRS**

The behavior of CPRS is also affected by parameters set through the following options in other applications:

Consults

Define Service Hierarchy

Set up Consults Services

Set Up Consult Protocols

Set Up Consult Site Parameters

Imaging

Common Procedure Enter/Edit

Rad/NM Procedure Entry/Edit

Parameter options in packages related to CPRS, cont'd

Imaging, cont'd

Modifier List

Procedure Modifier Entry

Division Parameter Set-up

Location Parameter Set-up

Device Specifications for Imaging Locations

Location Parameter List

Sharing Agreement/Contract Entry/Edit

Active Procedure List (Long)

Examination Status Entry/Edit

Examination Status List

Rad/NM Diagnostic Code Enter/Edit

Diagnostic Code List

Lab

Domain Level Parameter Edit

Location Level Parameter Edit

Package Level Parameter Edit

Update CPRS Parameters

Update CPRS with Lab order parameters

Update CPRS with Single Lab test

Update CPRS with all Lab test parameters

Merge Accessions

<u>Pharmacy</u>

Pharmacy Data Management Menu

Pharmacy/VA Generic Orderable Item Report

VA Generic Orderable Item Report

Create Pharmacy Orderable Items

Manually Match Dispense Drugs

Orderable Item Matching Status

Edit Orderable Items

Dispense Drug/Orderable Item Maintenance

Additive/Solutions, Orderable Item

Orderable Item Report

Drug Enter/Edit

Lookup into Dispense Drug File

Med Route/Instructions Table Maintenance

Med. Route/Instruction File Add/Edit

Medication Instruction File Add/Edit

Standard Schedule Edit

Parameter options in packages related to CPRS, cont'd

Pharmacy Data Management, cont'd

Electrolyte File (IV)

EnterEdit Local Drug Interaction

Edit Drug Interaction Severity

Primary Drug Edit

Edit IV Identifier

CMOP Mark/Unmark (Single drug)

Locked with PSXCMOPMGR

Outpatient Pharmacy

Site Parameter Enter/Edit [PSO SITE PARAMETERS]

Sets system parameter, ADMISSION CANCEL OF RXS, to

discontinue med orders 72 hours after admission.

Function call to determine if Outpatient Pharmacy orders can be renewed:

S X=$$RENEW^PSORENW(ORIFN). Returned X=-1,1 or 0_"^"_reason

(-1=invalid order, 1=renewable, 0=not renewable).

Maintenance (Outpatient Pharmacy) Menu

Site Parameter Enter/Edit

Edit Provider

Add New Providers

Queue Background Jobs

Autocancel Rx's on Admission

Bingo Board Manager ...

Edit Data for a Patient in the Clozapine Program

Enter/Edit Clinic Sort Groups

Initialize Rx Cost Statistics

Edit Pharmacy Intervention

Delete Intervention

Auto-delete from Suspense

Delete a Prescription

Expire Prescriptions

Purge Drug Cost Data

Purge External Batches

Recompile AMIS Data

Inpatient Meds

Options

Auto-Discontinue Set-Up (to auto-discontinue patients' orders whenever patients are transferred between wards, services, or to Authorized or Unauthorized Absence)

Inpatient Ward Parameters Edit (to edit MAR Parameters)

Site Parameters (IV)

Parameter options in packages related to CPRS, cont'd

Inpatient Meds, cont'd

Files

Inpatient Meds uses the following fields from the Pharmacy System file

(^PS(59.7)):

NON-FORMULARY MESSAGE: This is a message that will be shown to non-pharmacists when they order patient drugs that are not currently stocked by the pharmacy. This is typically a warning and/or a procedure the non-pharmacist must follow before pharmacy will dispense the non-formulary drug.

ALLOW THE CHANGE OF ORDER TYPES ON ORDERS FROM OERR: This field is a site parameter that will allow the pharmacist to change the type of order from what is received from CPRS. If this field is set to yes, it will be possible to change the order type on orders where the Orderable Item has data in the CORRESPONDING IV ITEM field for unit dose orders or data in the CORRESPONDING UD ITEM for IV orders.

IV IDENTIFIER: This is a free text field that can be up to 30 characters. If the Orderable Item is marked for IV usage, this text will display next to the Orderable Item to distinguish a Unit dose from an IV drug.

These fields can be accessed through the *Systems Parameters Edit [PSJ SYS EDIT]* option.

4. CPRS Configuration (IRM) [OR PARAM IRM MENU]

This menu is only available to those with Programmer access (holders of the XUPROG key).

Option	Menu Text	Description
OCX MAIN	Order Check Expert System Main Menu	These options are used for troubleshooting Order Checking and Notifications, for compiling the expert system rules, and for linking local terms with national terms for order checking.
ORMTIME MAIN	ORMTIME Main Menu	These options are intended for IRMS only, and are used in conjunction with the ORTASK routines.
ORE MGR	CPRS Clean-up Utilities	This menu contains a menu that contains utilities for checking consistency between lab files and OE/RR files.
XPAR MENU TOOLS	General Parameter Tools	This menu contains general purpose tools for managing parameters.

Order Check Expert System

Order Checking and Notifications both rely on a subset of CPRS called the Order Check Expert System. This includes a library of rules, elements, and a data dictionary, as well as facilities to maintain these data sets. Eventually the Expert System may be used for clinicians and others to create rules of their own by combining entities, elements, and rules.

How it works:

The Order Check Expert System is based on a set of Rules or Medical Logic Modules (MLM). The term Medical Logic Module, synonymous with rule or frame, is derived from the Arden Syntax, a standard for sharing MLMs and knowledge bases among decision support developers. The Order Check Expert System will support the Arden Syntax and will be able to share knowledge bases with other nonprofit entities.

At this point, the Expert System is mostly used as a compiler and as a tool for monitoring and debugging Order Checking and Notifications. The options on the Order Check Expert System Main Menu can be used to perform these functions.

Compiler

The compiler generates routines. The OCX post-install routine runs the compiler to generate an initial set of Order Checking routines. The post-install runs the compiler with default compiler options. One of the options is called Execution Trace. The default for this option is NO. When this option is set to YES, the compiler adds write statements to the compiled code that displays various aspects of the runtime environment. It displays information about the runtime datastream as well as the sequence of line labels as the compiled routine set executes. When this option is set to NO it does not add these additional statements. Adding this extra code makes the compiled routines bigger, but, since the compiler has a routine size limit (4k) imposed on it, it tends to make more routines instead. Thus, you may wind up with more routines.

Order Check Expert System Main Menu

```
   1      Compile Rules [OCX RUN COMPILER]

   2      Expert System Rule Activate/Inactivate [OCX RULE ACTIVATE]

   3      Edit Site Local Terms [OCX LOCAL TERM EDIT]

   4      Expert System Inquire [OCX EXPERT SYSTEM INQUIRE]
```

After CPRS installation, each site must run this option to link terms used in the expert system to local terms. Some terms like DNR and NPO diet must be mapped to one or more entries in the orderable item file. Other terms like Serum Creatinine must be mapped to the lab test file.

Edit Site Local Terms Example

```
Select OPTION NAME: OCX MAIN      Order Check Expert System Main Menu


   1      Compile Rules

   2      Expert System Rule Activate/Inactivate

   3      Edit Site Local Terms

   4      Expert System Inquire


Select Order Check Expert System Main Menu Option: 3  Edit Site Local Terms


   Order Check National Terms

     SERUM CREATININE

     SERUM UREA NITROGEN

     DNR

     PROTHROMBIN TIME

     THROMBOPLASTIN TIME PARTIAL

     NPO

     SERUM SPECIMEN

     PARTIAL THROMBOPLASTIN TIME

     ANGIOGRAM (PERIPHERAL)

     WBC


      < Enter ?? to see the rest of the national terms on this list>



Select National Term: PROTHROMBIN TIME



National Term: PROTHROMBIN TIME


  Translated from file: 'LABORATORY TEST'  60
```

```
         PT      (467)


Select LABORATORY TEST NAME: PTT
       468. PTT
Select LABORATORY TEST name: <Enter>
```

Mail Message

```
Subj: Order Check Compiler Status  [#16691] 13 Jan 98 10:53  14 Lines
From: POSTMASTER (Sender: GREEN,JOANN)  in 'IN' basket.  Page 1  **NEW**
-----------------------------------------------------------------------------


  The Order Check routine compiler has completed normally
       on JAN 13,1998 at 10:53 by [15]  GREEN,JOANN.


        ORDER CHECK EXPERT version 1.0 (rev15) released DEC 15,1997 at 12:18


                    Elapsed time: 6 minutes 50 seconds
                                  Queued
            Execution Trace Mode:  ON
       Elapsed time Logging Mode:
          Raw Data Logging Mode:  ON  Keep data for 3 days then purge.
         Lines of code generated: 7835


Select MESSAGE Action: IGNORE (in IN basket)//
```

Expert System Inquire

This option lets you display the components that make up the rules that control order checking and notifications.

```
    1       Compile Rules

    2       Expert System Rule Activate/Inactivate

    3       Edit Site Local Terms

    4       Expert System Inquire


Select Order Check Expert System Main Menu Option: 4  Expert System Inquire


                          Expert System Display


                 Display a Rule


                 Display an Element


                 Display a Data Field


Option List -> Element, Field, Rule


Choose an Option: R

Select ORDER CHECK RULE NAME: ?

 Answer with ORDER CHECK RULE NAME

 Do you want the entire 38-Entry ORDER CHECK RULE List? Y  (Yes)

Choose from:

   ABNORMAL LAB RESULTS

   ALLERGY - CONTRAST MEDIA REACTION

   AMINOGLYCOSIDE ORDER

   BIOCHEM ABNORMALITIES/CONTRAST MEDIA CHECK

   CLOZAPINE

   CONCURRENT LAB ORDERS FOR ANGIOGRAM, CATH - PERIPHERAL

   CONSULT/REQUEST CANCELED/HELD      ***INACTIVE

   CONSULT/REQUEST RESOLUTION      ***INACTIVE

   CREATININE CLEARANCE ESTIMATION

   CRITICAL HIGH LAB RESULTS

   CRITICAL LOW LAB RESULTS

   CT OR MRI PHYSICAL LIMIT CHECK

   FOOD/DRUG INTERACTION
```

```
GLUCOPHAGE - CONTRAST MEDIA

IMAGING REQUEST CANCELLED/HELD

LAB ORDER CANCELLED

LAB RESULTS

NEW ORDER PLACED

NPO DIET FOR MORE THAN 72 HOURS       ***INACTIVE

ORDER FLAGGED FOR CLARIFICATION

ORDER REQUIRES CHART SIGNATURE

ORDER REQUIRES CO-SIGNATURE

ORDER REQUIRES ELECTRONIC SIGNATURE

ORDERABLE ITEM MESSAGE

ORDERER FLAGGED RESULTS AVAILABLE

PATIENT ADMISSION

PATIENT DISCHARGE

PATIENT TRANSFERRED FROM PSYCHIATRY TO ANOTHER UNIT

POLYPHARMACY

RECENT BARIUM STUDY

RECENT CHOLECYSTOGRAM ORDER

RENAL FUNCTIONS OVER AGE 65 CHECK

SERVICE ORDER REQUIRES CHART SIGNATURE

SITE FLAGGED ORDER

SITE FLAGGED RESULT
```

Order Check Expert System, cont'd

```
 STAT ORDER PLACED

   STAT RESULTS AVAILABLE

   ZZ TEST RULE        ***INACTIVE


Select ORDER CHECK RULE NAME: L

     1   LAB ORDER CANCELLED

     2   LAB RESULTS

CHOOSE 1-2: 2

DEVICE: HOME// <Enter>  ALPHA


Rule: LAB RESULTS (ACTIVE Status)


Rule Element Label: HL7 LAB RESULTS

             Element: HL7 FINAL LAB RESULT


     Event-Element Name: HL7 FINAL LAB RESULT

             Data Context: GENERIC HL7 MESSAGE ARRAY

          Compiled Routine:

             Expression #3: IF  |CONTROL CODE| EQUALS ELEMENT IN SET'RE'

             Expression #4: IF  |FILLER| STARTS WITH 'LR'

             Expression #5: IF  |REQUEST STATUS (OBR)| EQ FREE TEXT'F'


         Data Field Name: CONTROL CODE

             Abbreviation:

             Data Context: GENERIC HL7 MESSAGE ARRAY


             Metadictionary Link: PATIENT.HL7_CONTROL_CODE

                    Attribute: HL7 CONTROL CODE

                    Data Type: FREE TEXT

                     OCXO VARIABLE NAME: OCXODATA("ORC",1)

                OCXO UP-ARROW PIECE NUMBER: 1

                  OCXO DATA DRIVE SOURCE: HL7


         Data Field Name: FILLER

             Abbreviation: FILL

             Data Context: GENERIC HL7 MESSAGE ARRAY


             Metadictionary Link: PATIENT.HL7_FILLER

                    Attribute: HL7 FILLER
```

```
                          Data Type: FREE TEXT
                OCXO UP-ARROW PIECE NUMBER: 2
                       OCXO VARIABLE NAME: OCXODATA("ORC",3)
                   OCXO DATA DRIVE SOURCE: HL7


         Data Field Name: REQUEST STATUS (OBR)
            Abbreviation:
            Data Context: GENERIC HL7 MESSAGE ARRAY


          Metadictionary Link: PATIENT.HL7_REQUEST_STATUS
                    Attribute: REQUEST STATUS
                    Data Type: FREE TEXT
                     OCXO VARIABLE NAME: OCXODATA("OBR",25)
                OCXO UP-ARROW PIECE NUMBER: 1
                   OCXO DATA DRIVE SOURCE: HL7


Relation Expression: HL7 LAB RESULTS
          Notification: LAB RESULTS
   Notification Message: Lab results: |ORDERABLE ITEM NAME|


      Data Field Name: ORDERABLE ITEM NAME
         Abbreviation:
         Data Context: DATABASE LOOKUP
```

```
          Metadictionary Link: PATIENT.ORD_ITEM_NAME
                    Attribute: ORDERABLE ITEM
                    Data Type: FREE TEXT
           OCXO EXTERNAL FUNCTION CALL: ORDITEM(|ORDER NUMBER|)


 Press <enter> to continue... <Enter>


Expert System Display



                Display a Rule

                Display an Element

                Display a Data Field

Option List -> Element, Field, Rule


Choose an Option:
```

ORMTIME

ORMTIME is a background processor that is used in conjunction with the ORTASK routines to manage background jobs for order processing. They are intended for IRMS only.

ORMTIME is automatically scheduled once the Orders conversion is done. REQUEUE^ORMTIME is called from CLEANUP^OR3CONV1, which occurs when the conversion completes.

The following notifications/alerts are triggered via ORMTIME. If ORMTIME is not running/queued, they will not be sent.

> DNR Expiring
>
> Medications Expiring
>
> NPO Diet > 72 Hours
>
> Unverified Medication Order
>
> Unverified Order

ORMTIME Main Menu [ORMTIME MAIN]

This menu contains options that are used for managing ORMTIME.

Option	Name	Description
Reschedule Background Processor	ORMTIME REQUEUE BACKGROUND JOB	Use this opton to Queue or Requeue ORMTIME. It is safe to run this option if ORMTIME is already queued. There is a check in the queueing code to see if the job is already queued and will not queue another if it finds one already there.
Get Background Job Status	ORMTIME BACKGROUND JOB STATUS	This option gives a status report of when ORMTIME last ran and also indicates when it is next scheduled to run. It also indicates when each of the seven ORMTIME failsafe jobs are supposed to run.
Kill all ORMTIME Taskman Tasks	ORMTIME KILL ALL TASKS	This option is used to stop ORMTIME and all of its failsafe jobs. BE VERY CAREFUL WITH THIS OPTION. There are several Expert System purges that depend on

		ORMTIME and if ORMTIME is not running then the Expert System will eventually fill up the Volume Set it resides in.

CPRS Clean-up Utilities

This menu contains ORE LAB ORDER CHECKS, which has utilities for checking consistency between lab files and OE/RR files. These utilities can help you clean up some files as you move from OE/RR 2.5 to CPRS. (NOTE: The developers intend to add other options to this menu for checking the consistency for other packages.)

```
Select CPRS Manager Menu Option: IR  CPRS Configuration (IRM)


   OC     Order Check Expert System Main Menu ...
   UT     CPRS Clean-up Utilities ...


Select CPRS Configuration (IRM) Option: UT  CPRS Clean-up Utilities


   LA     Lab Order Checks ...



Select CPRS Clean-up Utilities Option: LA  Lab Order Checks


   1      Check Lab orders from file 69 to 100
            **> Out of order:  UNDER CONSTRUCTION
   2      Check Lab orders from file 100 to 69




Select Lab Order Checks Option: 2  Check Lab orders from file 100 to 69
This utility will look for inconsistencies between OE/RR 3.0 and Lab
files.
It will compare records in the Orders file (100) with the Lab Order file
(69).


Problems identified                              Resolution
-------------------                              ----------
^OR(100,IFN,0) does not exist                    ^OR(100,IFN) killed
Bad pointers on child orders                     Pointers removed
Child orders with no parent order                Pointer removed
Child order missing parent pointer               Pointer restored
Incorrect status on parent order                 Status corrected
Old veiled orders                                Purged
```

```
Unrecognized pointer to file 69                  Order cancelled

Unconverted orders from OE/RR 2.5                Order lapsed

Invalid pointer to file 69                       Order cancelled

Incorrect status on uncollected specimens        Status updated

Incorrect status on completed orders             Status updated

Missing reference to file 69                     Cancelled
(optional)

Old pending, active & unreleased orders          Status changed


Any problems will be displayed.  Continue? No// Y  (Yes)

Check for CPRS orders that no longer exist in the Lab Order file? No// Y
(Yes)

Do you want to remove old PENDING, ACTIVE and UNRELEASED orders? No// ?


Unreleased orders are removed from the system.

Old pending orders are changed to a Lapsed status, which will

remove them from the current orders context.
```

CPRS Clean-up Utilities, cont'd

```
Active orders that no longer have corresponding entries in the lab files
are changed to Lapsed
Do you want to remove old PENDING, ACTIVE and UNRELEASED orders? No// Y
(Yes)
Remove old orders with Start dates before: T-30// <Enter> (AUG 29, 1998)
Do you want me to correct the inconsistencies now? No// Y  (Yes)p
2.2=>GLUCOSE BLOOD S<2961022.115121>6<Didn't get converted, NOT IN 69
5.2=>DIGOXIN BLOOD S<2961022.131419>6<Didn't get converted, NOT IN 69
12.2=>DIGOXIN BLOOD S<2961029.154314>6<Didn't get converted, NOT IN 69
23.2=>PT  {Profile} B<2961031.164613>6<Didn't get converted, NOT IN 69
24.2=>COAGULATION (PT<2961031.164613>6<Didn't get converted, NOT IN 69
32.2=>COAGULATION (PT<2961101.095846>6<Didn't get converted, NOT IN 69
34.2=>SMAC (CHEM 20) <2961101.101734>6<Didn't get converted, NOT IN 69
37.2=>COAGULATION (PT<2961101.101814>6<Didn't get converted, NOT IN 69
89.1=>CHOLESTEROL BLO<2941129.154843>6<Didn't get converted, NOT IN 69
90.1=>GLUCOSE BLOOD S<2941129.154843>6<Didn't get converted, NOT IN 69
91.1=>HDL BLOOD SERUM<2941129.154843>6<Didn't get converted, NOT IN 69
96.1=>CHOLESTEROL BLO<2941129.155258>6<Didn't get converted, NOT IN 69
97.1=>GLUCOSE BLOOD S<2941129.155258>6<Didn't get converted, NOT IN 69
101.1=>TRANSFUSION REQ<2950120.120443>6<Status should be Complete
102.1=>TRANSFUSION REQ<2950120.125307>6<Status should be Complete
178=>OCCULT BLOOD (S<2911120.0936>5<Status should be Complete
277=>CHOLESTEROL BLO<2911120.154>5<Status should be Complete
278=>GLUCOSE BLOOD S<2911120.154>5<Status should be Complete
281=>GLUCOSE BLOOD S<2911121.1127>5<Status should be Complete
304=>TRANSFUSION REQ<2931217.1327>5<Status should be Complete
306=>Consult to PULM<><No package defined
307=>Consult to PULM<><No package defined
308=>Consult to PULM<><No package defined
309=>Consult to PULM<><No package defined
310=>Consult to PULM<><No package defined
311=>Consult to PULM<><No package defined
394=>CHEM 7 BLOOD SE<2980317.142517>6<Status should be Complete
409=>CO2 BLOOD SERUM<2980317.142527>6<Status should be Complete
445=>TRANSFUSION REQ<2980317.144511>6<Status should be Complete
472=>CO2 BLOOD SERUM<2980611.120016>6<Status should be Complete
560=>GLUCOSE BLOOD S<2980616.142934>6<Status should be Complete
```

```
Total inconsistencies: 221
Old Pending orders total: 185
Old Unreleased orders total: 5
Unconverted 2.5 orders total: 13
Status should be complete: 12


   1       Check Lab orders from file 69 to 100
              **> Out of order:  UNDER CONSTRUCTION
   2       Check Lab orders from file 100 to 69


Select Lab Order Checks Option:
```

General Parameter Tools

Options on this menu let you display or edit the "values" for selected parameters, entities, packages, and templates. The Parameter File (8989.1) has four fields:

- Entity   the person, place, or thing the parameter is being defined for

- Parameter   the definition of this particular parameter

- Instance   for multi-division or integrated sites

- Value   what you define or set for this parameter

Name	Text	Definition
XPAR LIST BY PARAM	List Values for a Selected Parameter	This option prompts for a parameter (defined in the PARAMETER DEFINITION file) and lists all value instances for that parameter.
XPAR LIST BY ENTITY	List Values for a Selected Entity	This option prompts for the entry of an entity (location, user, etc.) and lists all value instances for that entity.
XPAR LIST BY PACKAGE	List Values for a Selected Package	This option prompts for a package and lists all parameter values for the selected package.
XPAR LIST BY TEMPLATE	List Values for a Selected Template	This option prompts for a parameter template. Depending on the definition of the template, additional information may be prompted for and then the parameter values defined by the template are displayed.
XPAR EDIT PARAMETER	Edit Parameter Values	The option calls the low level parameter editor, which allows you to edit the values for every parameter. Normally packages supply other means of editing parameters.
XPAR EDIT BY TEMPLATE	Edit Parameter Values with Template	This option prompts for a Parameter Template and then uses the selected template to edit parameter values.

List Values for a Selected Parameter

```
Select CPRS Configuration (IRM) Option: XX  General Parameter Tools


   LV     List Values for a Selected Parameter
   LE     List Values for a Selected Entity
   LP     List Values for a Selected Package
   LT     List Values for a Selected Template
   EP     Edit Parameter Values
   ET     Edit Parameter Values with Template


Select General Parameter Tools Option: LV  List Values for a Selected Parameter
Select PARAMETER DEFINITION NAME: ORPF SERVICE COPY FORMAT      Service Copy Format


Values for ORPF SERVICE COPY FORMAT


SYS: OEX.ISC-SLC.VA.GOV        PHARMACY            DOCTOR'S ORDERS
SYS: OEX.ISC-SLC.VA.GOV        LAB SERVICE         DOCTOR'S ORDERS
SYS: OEX.ISC-SLC.VA.GOV        RADIOLOGY/NUCLEAR ME DOCTOR'S ORDERS
SYS: OEX.ISC-SLC.VA.GOV        OUTPATIENT PHARMACY  DOCTOR'S ORDERS
SYS: OEX.ISC-SLC.VA.GOV        CONSULT/REQUEST TRAC CONSULTATION BODY
SYS: OEX.ISC-SLC.VA.GOV        CONSULT TRACKING    CONSULTATION BODY


Enter RETURN to continue or '^' to exit:
```

List Values for a Selected Template

List templates have been created for many parameters, to ensure a consistent format for displaying and editing parameters. You can view the default values or local settings for any of these templates through these options.

```
Select General Parameter Tools Option:  List Values for a Selected Template
Select PARAMETER TEMPLATE NAME: ?
 Answer with PARAMETER TEMPLATE NAME
 Do you want the entire 23-Entry PARAMETER TEMPLATE List? y  (Yes)
Choose from:
   LR DOMAIN                        Lab Domain Level Parameters
   LR LOC                           Lab Location Level Parameters
   LR PKG                           Lab Package Level Parameters
   ORP CHART COPY                   Chart Copy Definition
   ORP ORDER MISC                   Miscellaneous OE/RR Definition
   ORP PRINTS (HOSP)                Miscellaneous Hospital Prints
   ORP PRINTS (LOC)                 Print Definition (Loc)
   ORP REQUISITIONS/LABELS          Requisition/Label Definition
   ORP SERVICE COPY                 Service Copy Definition
   ORP SUMMARY REPORTS              Summary Report Definition
   ORP WORK COPY                    Work Copy Definition
   ORQQ SEARCH RANGE (DIVISION)     GUI Cover Sheet - Division
   ORQQ SEARCH RANGE (LOCATION)     GUI Cover Sheet - Location
   ORQQ SEARCH RANGE (SERVICE)      GUI Cover Sheet - Service
   ORQQ SEARCH RANGE (SYSTEM)       GUI Cover Sheet - System
   ORQQ SEARCH RANGE (USER)         GUI Cover Sheet - User
   XPAR TEST 2                      TEST 2
   XPAR TEST TEMPLATE               Parameter Tools Test Template
   ZZORQQ SEARCH RANGE (DIVISION)   GUI Cover Sheet - Division
   ZZORQQ SEARCH RANGE (LOCATION)   GUI Cover Sheet - Location
   ZZORQQ SEARCH RANGE (SERVICE)    GUI Cover Sheet - Service
   ZZORQQ SEARCH RANGE (SYSTEM)     GUI Cover Sheet - System
   ZZTEST                           GUI Cover Sheet Display Parm U


Select PARAMETER TEMPLATE NAME: ORP ORDER MISC        Miscellaneous OE/RR
          Definition


Miscellaneous OE/RR Definition for System: OEX.ISC-SLC.VA.GOV
```

```
--------------------------------------------------------------------
Active Orders Context Hours                    24
Auto Unflag                                    YES
Confirm Provider                               YES (Exclude ORES)
Default Provider                               YES
Error Days                                     2
Grace Days before Purge                        30
Restrict Requestor                             YES (ORELSE & OREMAS)
Review on Patient Movement                     YES
Show Status Description                        YES
Signed on Chart Default                        NO
--------------------------------------------------------------------
Enter RETURN to continue or '^' to exit:
```

5. Other CPRS Configuration

List Manager Terminal Set-Up

Check the List Manager Attributes file. You may need to update the Terminal Type file for the VT100's; If the "Insert Line" field is empty, this will cause List Manager to revert back to scroll mode

List Manager uses 11 video attributes, which are in the Terminal Type file. These are listed (along with recommended values) in the Site Preparation section of the List Manager Developer's Guide.

Attribute	Value for a VT series terminal
Form Feed	#,$C(27,91,50,74, 27,91,72)
XY CRT	W $C(27,91)_((DY+1))_$C(59)_((DX+1))_$C(72)
Erase to End of Page	$C(27,91,74)
Insert Line	$C(27),"[L"
Underline On	$C(27,91,52,109)
Underline Off	$C(27,91, 109)
High Intensity	$C(27,91,49,109)
Normal Intensity	$C(27,91,109)
Save Cursor Pos	$C(27,55)
Restore Cursor Pos	$C(27,56)
Set Top/Bottom Marg	$C(27,91)_(+IOTM)_$C(59)_(+IOBM)_$C(114)

Nature of Order File

This file determines the actions that are to be taken based on the nature of an order or change to an order.

☞**NOTE**: *This file shouldn't be added to or deleted from.*

The file is initially populated with data that seems the most appropriate.

If sites find it necessary to change some of the fields for the entries in

this file, they may do so. We recommend that you review the entries after CPRS is installed, and make changes to match local practice.

These fields include:

Field #	Field Name	Description
100.02,.03	NON-INTERACTIVE	This field identifies this entry for interactive or non-interactive use.
100.02,.04	INACTIVE	This field is used to inactivate a nature of order.
100.02,.05	FRONT/BACKDOOR	This field is used to identify entries that are used during an OE/RR dialog (frontdoor), and entries that are used by ancillary services (backdoor).
100.02,.06	DC ONLY	Enter YES if this entry is only used for DC actions.
100.02,.11	CREATE ACTION	Enter YES if an order action should be created and signed, or NO to simply update the status of this order
100.02,.12	PRINT CHART COPY	This field determines if this entry/action should generate a Chart copy.
100.02,.13	PRINT DAILY SUMMARY	This field determines if this entry/action should appear on the Daily Order Summary.

100.02,.14	DEFAULT SIGNATURE STATUS	`'0' FOR ON CHART w/written orders;`
		`'1' FOR ELECTRONIC;`
		`'2' FOR NOT SIGNED;`
		`'3' FOR NOT REQUIRED;`
		`'4' FOR ON CHART w/printed orders;`
		`'5' FOR NOT REQUIRED due to cancel;`
		`'6' FOR SERVICE CORRECTION to signed`

		order; This is the signature status that will be assigned to an order having this nature; if a signature is not applicable, this field should be null.
100.02,.15	PRINT WORK COPY	This field determines if this entry/action should generate a Work Copy.

Tasked Jobs

Schedule the following tasks, as appropriate for your site:

1 ORTASK 24HR CHART COPIES Task 24hr Chart Copy Print by Location run routine

2 ORTASK 24HR SUMMARY   Task 24hr Order Summary by Location run routine

3 ORTASK NICHT E   Nightly clean-up   run routine

4 ORTASK PURGE   Old Orders Batch Purge   run routine

More information is included in the Archiving/Purging section of this manual on the last two tasks.

Example

```
Select Taskman Management Option: schedule/Unschedule Options


Select OPTION to schedule or reschedule: ortask 24HR CHART COPIES
          Task  24hr Chart Copy Print by Location     run routine
         ...OK? Yes// <Enter>   (Yes)

       (R)
Edit Option Schedule
    Option Name: ORTASK 24HR CHART COPIES
    Menu Text: Task 24hr Chart Copy Print by Lo        TASK ID: 385010
 _____


  QUEUED TO RUN AT WHAT TIME: OCT 18,1997@00:05


DEVICE FOR QUEUED JOB OUTPUT: WORK;P-DOC132;132;64


 QUEUED TO RUN ON VOLUME SET:


      RESCHEDULING FREQUENCY: 1D


           TASK PARAMETERS:


           SPECIAL QUEUEING:


_____

```

```
COMMAND:                                    Press <PF1>H for help    Insert
```

Exported Routines

Routine First Line Descriptions

Routine	Description
OEX,OER	**09/30/98** **FIRST LINE LIST:**

OCXBDT   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES ;7/27/98 13:55

OCXBDT1   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Routine Checksums)
          ;9/22/98 14:02

OCXBDT2   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (File Data) ;6/23/98
          12:51

OCXBDT3   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Routines)
          ;7/23/98 10:05

OCXBDT4   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI0) ;7/27/98 13:55

OCXBDT5   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI1) ;7/21/98 14:01

OCXBDT6   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI2) ;7/21/98 14:15

OCXBDT7   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI3) ;7/21/98 14:01

OCXBDT8   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI4) ;7/21/98 14:01

OCXBDT9   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Library
          Routine OCXDI5) ;7/23/98 10:05

OCXBDTA   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (Build Runtime Librar y
          Routine OCXDIAG) ;7/27/98 13:55

OCXBDTD   ;RJS/SLC - BUILD OCX PACKAGE DIAGNOSTIC ROUTINES (DD and DIC interface)
          ;9/10/97 09:38

OCXDEBUG ;SLC/RJS,CLA - ORDER CHECK COMPILED CODE DEBUGGER (SINGLE/MULTI);9/22/
          98 14:30

OCXDI001 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI002 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI003 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI004 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI005 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI006 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI007 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI008 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI009 ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00A ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00B ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00C ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00D ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

```
OCXDI00E  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00F  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00G  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00H  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00I  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00J  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDI00K  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC ROUTINES ;JUL 20,1998 at 11:09

OCXDIAG   ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG0  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG1  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG2  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG3  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG4  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;JUL 20,1998 at 11:09

OCXDIAG5  ;RJS/SLC - OCX PACKAGE DIAGNOSTIC UTILITY ROUTINE ;7/20/98  11:10

OCXF20    ;SLC/RJS,CLA - GENERATES CODE FOR 'Numeric' OPERATORS ;3/18/97  14:31

OCXF21    ;SLC/RJS,CLA - GENERATES CODE FOR 'Date' OPERATORS ;4/24/97  20:02

OCXF22    ;SLC/RJS,CLA - GENERATES CODE FOR 'Free Text (String)' OPERATORS
            ;9/03/97  09:05
```

Routine   Description

OCXF23   ;SLC/RJS,CLA - GENERATES CODE FOR 'Boolean' OPERATORS ;3/18/97 14:31

OCXFMGR   ;SLC/RJS,CLA - GENERATES UNIQUE IDENTIFIER FOR OCX OBJECTS ;10/29/97
          11:32

OCXLOG1   ;RJS/SLC-ISC - Rule Display (Expert System - Data Field Frequency in
          OCXLog Report) ;9/08/98 11:22

OCXOCMP   ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Main Entry point - All Rules)
          ;12/15/97 12:54

OCXOCMP1 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Data Field Navigation
          Code) ;9/04/98 13:48

OCXOCMP2 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Rule Element
          Evaluation Code) ;8/05/98 10:29

OCXOCMP3 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Rule Element Relation
          code) ;10/14/97 14:46

OCXOCMP4 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Sort Code Segments) ;9/22/98
          14:02

OCXOCMP5 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Optimize Order Check Sub-
          Routines) ;1/21/98 10:13

OCXOCMP6 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Assemble Order Check Routines)
          ;1/22/98 11:11

OCXOCMP7 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build Local Extrinsic
          Functions) ;9/03/98 14:56

OCXOCMP8 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Assemble Order Check Routines
          utilities) ;1/20/98 15:42

OCXOCMP9 ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build List of Active Rules,
          Elements and Data Fields) ;8/10/98 10:19

OCXOCMPA ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Convert Constant Values to
          internal format) ;11/17/97 14:07

OCXOCMPB ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Parse a Rule Relation
          Expression) ;11/12/97 15:40

OCXOCMPC ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Optimize a Boolean Expression)
          ;11/12/97 15:40

OCXOCMPD ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Sort Code Segments cont...)
          ;9/04/98 13:48

OCXOCMPE ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Rule Elements cont...)
          ;1/21/98 09:49

OCXOCMPF ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Parse a Rule Relation
          Expression continued...) ;11/12/97 15:40

OCXOCMPG ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Sort Code Segments cont...)
          ;9/22/98 14:02

OCXOCMPH ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build GETDF Function) ;8/11/98
          15:05

OCXOCMPI ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build LIST Function Code)
          ;1/20/98 09:10

OCXOCMPJ ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build LIST Function Code
          cont...) ;11/12/97 15:40

OCXOCMPK ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build LIST Function Code
          cont...) ;11/12/97 15:40

OCXOCMPL ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Complex Rule Element
          Expressions) ;11/12/97 15:40

```
OCXOCMPM  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Compile Rule Element MetaCode)
             ;9/17/98  14:14
OCXOCMPN  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Construct Rule MetaCode
             Subroutines) ;9/03/98  15:57
OCXOCMPO  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Get Compiler Function
             Subroutines) ;9/04/98  14:04
OCXOCMPP  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Generate Active Data Purge
             Logic) ;7/18/97  19:29
OCXOCMPQ  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Sort Code Segments cont...)
             ;1/13/98  13:08
OCXOCMPR  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Function Library Report and
             code edit) ;9/24/97  08:01
OCXOCMPS  ;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Screen Code Library) ;8/25/97
             15:32
```

Routine	Description
OCXOCMPT	;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build Sub-Routine Variable and Function Call Documentation) ;1/20/98 15:11
OCXOCMPU	;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Build Local Term Translator) ;9/04/98 14:19
OCXOCMPV	;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Main Entry point - All Rules cont...) ;9/04/98 14:38
OCXOCMPZ	;SLC/RJS,CLA - ORDER CHECK CODE COMPILER (Convert Link Data) ;7/18/97 19:29
OCXOCONV	;SLC/RJS,CLA - EXPERT SYSTEM CONVERSION (PRE 1T13 -> 1T14) ;1/22/98 12:54
OCXODGPM	;SLC/RJS,CLA - External Interface - PROCESS MAS MOVEMENT EVENT ;9/18/98 14:41
OCXODIC	;SLC/RJS,CLA - FILMAN LOOKUP INTERFACE ;6/27/97 10:21OCXODSP ;SLC/RJS,CLA - Rule Display (Expert System Display Main Screen) ;11/2
5/97 14:02OCXODSP1	;SLC/RJS,CLA - Rule Display (Display a Rule) ;9/19/97 08:39
OCXODSP2	;SLC/RJS,CLA - Rule Display (Display an Element) ;9/10/97 09:18
OCXODSP3	;SLC/RJS,CLA - Rule Display (Display a Data Field) ;9/10/97 09:18
OCXODSP4	;SLC/RJS,CLA - Rule Display (Display a MetaDictionary Link) ;9/10/97
OCXOED01	;SLC/RJS,CLA - Rule Editor (Rule Display) ;3/18/97 14:32
OCXOED02	;SLC/RJS,CLA - Rule Editor (Rule Options) ;4/23/97 16:25
OCXOED03	;SLC/RJS,CLA - Rule Editor (Rule Element Definition Display) ;3/18/97
OCXOED04	;SLC/RJS,CLA - Rule Editor (Rule Element Definition Options) ;4/23/97
OCXOED05	;SLC/RJS,CLA - Rule Editor (Rule Element Relation Display) ;3/18/97 1
OCXOED06	;SLC/RJS,CLA - Rule Editor (Rule Element Relation Options) ;4/23/97 1
OCXOED07	;SLC/RJS,CLA - Rule Editor (Element Display) ;8/25/97 13:43
OCXOED08	;SLC/RJS,CLA - Rule Editor (Element Options) ;8/25/97 13:43
OCXOED09	;SLC/RJS,CLA - Rule Editor (Element Expression Display) ;3/18/97 14:3
OCXOED10	;SLC/RJS,CLA - Rule Editor (Element Expression Options) ;4/23/97 16:2
OCXOED11	;SLC/RJS,CLA - Rule Editor (Data Field Display) ;3/18/97 14:32
OCXOED12	;SLC/RJS,CLA - Rule Editor (Data Field Options) ;6/06/97 11:09
OCXOED13	;SLC/RJS,CLA - Rule Editor (Meta Dictionary Link Display) ;3/18/97 14
OCXOED14	;SLC/RJS,CLA - Rule Editor (Meta Dictionary Link Options) ;3/18/97 14
OCXOED15	;SLC/RJS,CLA - Rule Editor (Expert System Editor Display) ;11/25/97 1
OCXOED16	;SLC/RJS,CLA - Rule Editor (Expert System Editor Options) ;12/10/97 1
OCXOEDT	;SLC/RJS,CLA - Rule Editor (Main Routine) ;4/02/97 10:03
OCXOEDT4	;SLC/RJS,CLA - Rule Editor (Activate/Inactivate Rules) ;4/07/97 16:1
OCXOEDT5	;SLC/RJS,CLA - Edit Compiler Function Code ;6/27/97 00:15
OCXOEDT6	;SLC/RJS,CLA - Edit Site's Local Terms ;11/19/97 09:05
OCXOENV	;SLC/RJS,CLA - PREINSTALL ENVIRONMENT CHECK ROUTINE ;6/27/97 10:21
OCXOEPS	;SLC/RJS,CLA - External Interface - PROCESS OERR ORDER PRESCAN EVENT ;
OCXOERR	;SLC/RJS,CLA - External Interface - PROCESS OERR ORDER EVENT ;1/13/98
OCXOHL7	;SLC/RJS,CLA - External Interface - PROCESS HL7 DATA ARRAY ;9/22/98 1
OCXOLOC	;SLC/RJS,CLA - External Interface - Site Local subroutines ;3/18/97 1

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OCXOLOG   ;SLC/RJS,CLA - MAINTAIN RAW DATA LOG ;7/24/98  11:03
OCXOMENU  ;SLC/RJS,CLA -  Rule Display (Expert System - Report Menu ) ;6/27/97
OCXOPOST  ;SLC/RJS,CLA - ORDER CHECK INSTALL POST INIT ;1/22/98  12:54
OCXOPRE   ;SLC/RJS,CLA - ORDER CHECK INSTALL PRE INIT ;12/15/97  11:57
OCXOPURG  ;SLC/RJS,CLA - Purge old Log and Patient Data ;7/27/98  13:55
OCXOSCR1  ;SLC/RJS,CLA -  Post selection action for the Order Check DataField FiLe
OCXOSCR2  ;SLC/RJS,CLA -  Post selection action for the Order Check Element File
OCXOSCR3  ;SLC/RJS,CLA -  message xref for the Order Check Patient Rule Event FiLe
OCXOTIME  ;SLC/RJS,CLA - PROCESS TIME BASED EVENT ;1/13/98  10:26
OCXOZ01   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ02   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ03   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ04   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ05   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ06   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ07   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ08   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ09   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0A   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0B   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0C   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
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Routine	Description
OCXOZ0D	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0E	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0F	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0G	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0H	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0I	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0J	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0K	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0L	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0M	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0N	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0O	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0P	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0Q	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0R	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0S	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0T	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0U	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0V	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0W	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0X	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0Y	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ0Z	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ10	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ11	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ12	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ13	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ14	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ15	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ16	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ17	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ18	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ19	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1A	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1B	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1C	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1D	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1E	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1F	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1G	;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04

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OCXOZ1H    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1I    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1J    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1K    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1L    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1M    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1N    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1O    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1P    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1Q    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1R    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1S    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1T    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1U    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1V    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1W    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1X    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1Y    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ1Z    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ20    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ21    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ22    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ23    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:04
OCXOZ24    ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:05
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Routine   Description

OCXOZ25   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:05

OCXOZ26   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:05

OCXOZ27   ;SLC/RJS,CLA - Order Check Scan ;SEP 22,1998 at 14:05

OCXSEND   ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES ;9/08/98 11:18

OCXSEND1 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Get List of Objects to
          Transport) ;8/11/98 08:48

OCXSEND2 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (File Data) ;8/17/98 07:38

OCXSEND3 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build Routines) ;8/05/98

OCXSEND4 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRU0) ;8/17/98 15

OCXSEND5 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRU1) ;9/08/98 11

OCXSEND6 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRU2) ;8/17/98 15

OCXSEND7 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRU3) ;8/17/98 15

OCXSEND8 ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRU4) ;8/17/98 15

OCXSENDA ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Build OCXRULE) ;8/17/98 1

OCXSENDB ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (Get List of Objects to
          Transport continued) ;9/08/98 11:22

OCXSENDD ;RJS/SLC - BUILD RULE TRANSPORTER ROUTINES (DD and DIC interface) ;7/2

OLDLEXP6 ; ISL Lexicon Utility 2.0*6 Env/Pre/Post   ; 10-15-97

OLDXXST   ; ISL Lexicon Status (Main/Files)   ; 05-17-97

OR   ; slc/dcm - OE/RR

OR1   ; slc/dcm - OE/RR

OR2549PC ;SLC/MLI - Clean-up package names/namespaces ; 3/28/95@1340

OR3C100   ; SLC/MKB - Orders file conversion for CPRS/OE3 ;8/8/97 15:27

OR3C100A ; SLC/MKB - Orders file conversion cont ;8/8/97 15:28

OR3C101   ; SLC/MKB - Cleanup unused protocols ;8/20/97 08:30

OR3CONV   ;SLC/MLI-OE/RR v3 conversion entry points ;8/2/97

OR3CONV1 ;SLC/MLI-Conversion utilities and cleanup ;8/2/97

OR3POST   ;SLC/MLI - Post-install for CPRS install ; 8/2/97

ORB   ; slc/CLA - Main routine for OE/RR notifications ;7/18/91 14:34

ORB3   ; slc/CLA - Main routine for OE/RR 3 notifications ;9/15/98 16:13

ORB31   ; slc/CLA - Routine to support OE/RR 3 notifications ;5/8/95 15:16 [

ORB3C0   ; slc/CLA - Routine to stub in notifications for parameter conversion to
          CPRS ;3/23/97 21:22

ORB3C1   ; slc/CLA - Routine to pre-convert OE/RR 2.5 to OE/RR 3 notifications

ORB3C2   ; slc/CLA - Routine to post-convert OE/RR 2.5 to OE/RR 3 notifications

ORB3F1   ; slc/CLA - Extrinsic functions to support OE/RR 3 notifications ;5/8/

ORB3FN   ; slc/CLA - Functions which return OE/RR Notification information ;12/

ORB3FUP1 ; slc/CLA - Routine to support notification follow-up actions ;7/15/95

ORB3FUP2 ; slc/CLA - Routine to support notification follow-up actions ;7/26/96

ORB3MGR1 ; SLC/AEB - Manager Options - Notifications Parameters;9/22/97

ORB3MGR2 ; SLC/AEB - Utilities for Manager Options - Notifications Parameters;4

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ORB3P9    ; slc/CLA - Post INIT for OR*3*9 v2 ;5/13/98  13:34

ORB3REC   ; SLC/AEB - Notification Management Options for Recipients/Users;9/22/

ORB3REG   ; slc/CLA - Support routine for ORB3 ;2/26/97 13:57 [ 04/02/97  2:16 P

ORB3TIM1  ; slc/CLA - Routine to trigger time-related notifications ;9/3/98  12:

ORB3U1    ; slc/CLA - Utilities which support OE/RR 3 Notifications ;12/15/97

ORB3U2    ; slc/CLA - OE/RR 3 Notifications Utilities routine two ;5/19/97  11:0

ORBSTAT   ; slc/CLA - OE/RR Notifications stats ;10/6/95  09:25

ORBU      ; slc/CLA - Mgmt utilities for OE/RR notifications ;8/22/91  18:34

ORBUTL    ; slc/CLA - Modified for K8.0 by JLI/ISC-SF.SEA - Utilities for OE/RR
            notifications ;10/24/94  10:41

ORBX31    ; Export Package Level Parameters ; Sep 30, 1998@11:03:28

ORBX3101  ; ; Sep 30, 1998@11:03:28

ORCACT    ; SLC/MKB - Act on orders ;7/29/97  08:29

ORCACT0   ;SLC/MKB-Validate order action ;7/1/97  11:59

ORCACT1   ;SLC/MKB-Act on orders cont ;7/29/97  08:26

ORCACT2   ;SLC/MKB-DC orders ;9/18/97  13:50

ORCACT3   ;SLC/MKB-Delayed Orders ;6/25/97  14:05

ORCACT4   ;SLC/MKB-Act on orders cont ;8/21/97  08:59

ORCB      ;SLC/MKB-Notifications followup for LMgr chart ;3/20/97  14:49

ORCD      ; SLC/MKB - Order Dialog utilities ;6/30/97  10:19

ORCDFH    ;SLC/MKB-Utility functions for FH dialogs ;9/18/97  13:45

ORCDFHTF  ; SLC/MKB - Utility functions for FH Tubefeeding dialog ;7/25/97  15:5

ORCDGMRA  ;SLC/MKB-Utility functions for GMRA dialogs ;7/21/97  16:40
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Routine	Description
ORCDGMRC	;SLC/MKB-Utility functions for GMRC dialogs ;7/22/97 14:28
ORCDLG	;SLC/MKB-Order dialogs ;6/16/97 12:28
ORCDLG1	; SLC/MKB - Order dialogs cont ;7/8/97 15:53
ORCDLG2	;SLC/MKB-Order dialogs cont ;6/16/97 11:06
ORCDLGH	; SLC/MKB - Help for Order Dialogs ;4/7/97 10:00
ORCDLR	;SLC/MKB-Utility functions for LR dialogs ;6/11/97 11:47
ORCDLR1	;SLC/MKB-Utility fcns for LR dialogs cont ;2/19/98 09:00
ORCDPS	;SLC/MKB-Pharmacy dialog utilities ;7/2/97 09:58
ORCDPSIV	;SLC/MKB-Pharmacy IV dialog utilities ;6/30/97 11:01
ORCDRA	; SLC/MKB - Utility functions for RA dialogs ;7/16/97 13:23
ORCDRA1	;SLC/MKB-Utility functions for RA dialogs ;6/9/97 14:26
ORCENV	;SLC/MLI - Environment check routine ; 18 March 97
ORCFLAG	; SLC/MKB - Flag orders ;6/2/97 10:44
ORCHANG1	; SLC/KCM,MKB - Navigate Display Groups ;9/19/95 15:27
ORCHANG2	;SLC/MKB-Change View status ;7/16/97 08:05
ORCHANGE	;SLC/MKB-Change View utilities ;7/15/97 14:00
ORCHART	;SLC/MKB-OE/RR ;3/26/97 10:43
ORCHECK	;SLC/MKB-Order checking calls ;4/5/97 20:06
ORCHTAB	;SLC/MKB-Build Chart tab listings ;4/17/97 10:36
ORCHTAB1	;SLC/MKB-Build Chart-tabs cont ;6/3/98 14:21
ORCHTAB2	;SLC/MKB-Add item to tab listing cont ;6/4/98 11:17
ORCHTAB3	;SLC/MKB,dcm-Add item to tab listing ;6/3/98 14:19
ORCHTAB4	;SLC/MKB,dcm-Add item to tab listing ;4/17/97 11:08
ORCHTAB5	;SLC/dcm - Add item to tab listing ;4/17/97 11:08
ORCK101	;SLC/JFR - OR 49 CHECK UTILITIES ;7/27/98
ORCMED	;SLC/MKB-Medication actions ;11/24/97 14:42
ORCMEDIT	;SLC/MKB-Menu Editor ;7/1/97 15:18
ORCMEDT1	;SLC/MKB-QO,Set editor ;7/17/97 08:40
ORCMEDT2	;SLC/MKB-Menu Editor cont;6/30/97 14:42
ORCMEDT3	;SLC/MKB-Dialog editor ;6/30/97 15:53
ORCMEDT4	;SLC/MKB-Prompt Editor ;6/30/97 15:56
ORCMEDT5	;SLC/MKB-Misc menu utilities ;1/6/98 13:37
ORCMENU	;SLC/MKB-Add Orders menus ;8/6/97 12:25
ORCMENU1	;SLC/MKB-Add Orders cont ;2/7/97 15:41
ORCMENU2	;SLC/MKB-Review New Orders ;12/31/97 12:38
ORCNOTE	; SLC/MKB - Progress Note actions ;3/18/98@11:01:11
ORCONSLT	;SLC/MKB-Consult actions ;9/4/97 14:10
ORCONV0	; SLC/MKB - Convert protocols/menus to Dialogs cont ;9/15/97 15:41
ORCONV1	; SLC/MKB - Convert protocols/menus to Dialogs cont ;6/10/97 10:37
ORCONV2	; SLC/MKB - Convert protocols/menus to Dialogs cont ;6/10/97 10:40

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ORCONV3   ; SLC/MKB - Convert diet orders, UD Order Sets ;6/20/97  11:24
ORCONVRT  ; SLC/MKB - Convert protocols/menus to Dialogs ;9/15/97  15:38
ORCPOST   ; slc/dcm,MKB - CPRS post-init ;10/25/97  16:13
ORCPRE    ; SLC/MKB - CPRS pre-init ;3/26/97  13:41
ORCPROB   ; SLC/MKB - Problem List interface ;12/9/97  10:44
ORCSAVE   ;SLC/MKB-Save [ 08/09/96  11:28 PM ] ;7/1/97  11:25
ORCSAVE1  ; SLC/MKB - Save Order Text ;7/21/97  15:47
ORCSAVE2  ;SLC/MKB-Utilities to update an order ;3/26/97  11:50
ORCSEND   ;SLC/MKB-Release orders ;8/8/97  08:15
ORCSEND1  ;SLC/MKB-Release cont ;4/7/97  12:35
ORCSIGN   ;SLC/MKB-Sign/Release orders ;2/3/98  11:45
ORCXPND   ; SLC/MKB - Expanded Display ;6/3/97  11:04
ORCXPND1  ; SLC/MKB - Expanded Display cont ;2/7/97  16:00
ORCXPND2  ; SLC/MKB - Expanded display cont ;2/12/97  11:50
ORCXPND3  ; SLC/MKB,dcm - Expanded display of Reports ;2/12/97  13:48
ORCXPNDR  ; SLC/MKB,dcm - Expanded display of Reports ;2/12/97  13:48
ORD1      ; DRIVER FOR COMPILED XREFS FOR FILE #101 ; 12/09/96
ORD11     ; COMPILED XREF FOR FILE #101 ; 12/09/96
ORD110    ; COMPILED XREF FOR FILE #101.021 ; 12/09/96
ORD111    ; COMPILED XREF FOR FILE #101.03 ; 12/09/96
ORD112    ; COMPILED XREF FOR FILE #101.07 ; 12/09/96
ORD12     ; COMPILED XREF FOR FILE #101.01 ; 12/09/96
ORD13     ; COMPILED XREF FOR FILE #101.02 ; 12/09/96
ORD14     ; COMPILED XREF FOR FILE #101.021 ; 12/09/96
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Routine   Description

Routine	Description
ORD15	; COMPILED XREF FOR FILE #101.03 ; 12/09/96
ORD16	; COMPILED XREF FOR FILE #101.07 ; 12/09/96
ORD17	; COMPILED XREF FOR FILE #101 ; 12/09/96
ORD18	; COMPILED XREF FOR FILE #101.01 ; 12/09/96
ORD19	; COMPILED XREF FOR FILE #101.02 ; 12/09/96
ORD2	; DRIVER FOR COMPILED XREFS FOR FILE #100 ; 08/11/98
ORD21	; COMPILED XREF FOR FILE #100 ; 08/11/98
ORD210	; COMPILED XREF FOR FILE #100.008 ; 08/11/98
ORD211	; COMPILED XREF FOR FILE #100.045 ; 08/11/98
ORD212	; COMPILED XREF FOR FILE #100.09 ; 08/11/98
ORD213	; COMPILED XREF FOR FILE #100.045 ; 03/12/97
ORD214	; COMPILED XREF FOR FILE #100.09 ; 03/12/97
ORD22	; COMPILED XREF FOR FILE #100.001 ; 08/11/98
ORD23	; COMPILED XREF FOR FILE #100.002 ; 08/11/98
ORD24	; COMPILED XREF FOR FILE #100.008 ; 08/11/98
ORD25	; COMPILED XREF FOR FILE #100.045 ; 08/11/98
ORD26	; COMPILED XREF FOR FILE #100.09 ; 08/11/98
ORD27	; COMPILED XREF FOR FILE #100 ; 08/11/98
ORD28	; COMPILED XREF FOR FILE #100.001 ; 08/11/98
ORD29	; COMPILED XREF FOR FILE #100.002 ; 08/11/98
ORDD1	; slc/dcm - Calls from OE/RR DD ;8/20/92 12:13 ;
ORDD100	; slc/dcm - DD entries for file 100 ;3/12/97 10:00
ORDD100A	;slc/dcm-DD entries for file 100 ;3/12/97 10:04
ORDD101	; slc/KCM - Build menus in XUTL (file 101) ;10/31/91 14:53 ;
ORDD41	;slc/KCM,MKB-Build menus in XUTL (file 101.41) ;6/9/97 10:47
ORDD43	; SLC/MKB - Build xrefs for file 101.43 ;7/2/97 10:52
ORELR	; slc/dcm - Lab Enforcer
ORELR1	; slc/dcm - Cross check/update file 100 with file 69
ORELR2	; slc/dcm - Cross check file 100 with file 69 ;2/21/96 13:30 ;
ORELR3	; slc/dcm - Cross check file 100 with file 69 ;2/21/96 13:30 ;
ORELR5	; slc/dcm - Check 69 against 100 ;
ORELR6	; slc/dcm - Check file 69 against 100 cont. ;
OREOR0	; slc/dcm - Check things ;7/23/97 12:49
ORERR	; RJS/SLC-ISC - Order Entry Error Logger ;8/21/98 13:45
ORGUEM	; slc/KCM - Set Up Formatted Protocol Menus ;5/28/92 14:41
ORGUEM1	; slc/KCM - Build menu in seq #, name format ;2/5/92 17:16;
ORGUEM2	; slc/KCM - Set Up Formatted Protocol Menus (cont) ;6/1/92 17:08
ORGUEM3	; slc/KCM - Setup Formatted Protocol Menus (cont) ;7/13/92 15:40
ORKCHK	; slc/CLA - Main routine called by OE/RR to initiate order checks ;7/2

```
ORKCHK2    ; slc/CLA - Order Checking support routine to do OCX-related order
             checks ;8/8/96 [ 04/02/97  1:08 PM ]
ORKCHK3    ; slc/CLA - Support routine called by ORKCHK to do DISPLAY mode order
             checks ;3/6/97  9:35
ORKCHK4    ; slc/CLA - Support routine called by ORKCHK to do SELECT mode order
             checks ;3/6/97  9:35
ORKCHK5    ; slc/CLA - Support routine called by ORKCHK to do ACCEPT mode order
             checks ;3/6/97  9:35
ORKCHK6    ; slc/CLA - Support routine called by ORKCHK to do SESSION mode order
             checks ;3/6/97  9:35
ORKLR      ; slc/CLA - Order checking support procedure for lab orders;7/23/96  1
ORKLR2     ; slc/CLA - Order checking support proc for lab orders, part 2;2/13/97
ORKMGR     ; SLC/AEB - Manager Options - Order Checking Parameters;9/22/97
ORKOR      ; slc/CLA - Order checking support procedure for orders ;12/15/97 [ 04
ORKPS      ; slc/CLA - Order checking support procedures for medications ;12/15/9
ORKRA      ; slc/CLA - Order checking support procedure for Radiology ;12/15/97
ORKREC     ; SLC/AEB - Recipient Options - Order Checking Parameters Management;9
ORKUTL     ; slc/CLA - Utility routine for order checking ;5/21/97  16:25
ORKX6A01   ; ; Sep 28, 1998@15:05:18
ORKXP9     ; Export Package Level Parameters ; Sep 28, 1998@15:05:18
ORKXP901   ; ; Sep 28, 1998@15:05:18
ORLA1      ; slc/dcm,cla - Order activity alerts ;11/7/95 10:00
ORLA11     ; slc/MKB - Order activity alerts cont ;11/7/95 10:00
ORLP       ; slc/CLA - Manager for Team List options ;9/27/93  09:56
ORLP0      ; slc/dcm,cla - Edit Patient Lists  ; 11/18/92
```

Routine	Description

```
ORLP00     ; slc/dcm,cla - Modify Patient Lists ;8/13/91  15:06
ORLP01     ; slc/MKB,CLA - Edit Patient Lists cont  ;9/27/93  09:54
ORLP1      ; slc/dcm,cla - Patient Lists, Store ;12/4/90  17:42
ORLP2      ; slc/Staff - Remove Autolinks from Team List ;9/27/93  09:56
ORLP3AUC   ; slc/CLA -  Automatically load clinic patients into team lists ;9/11/
ORLP3AUT   ; slc/CLA -  Automatically load patients into team lists ;7/21/96
ORLP3C1    ; slc/CLA - Utilities to convert OE/RR 2.5 lists ;12/15/97 [ 04/03/97
ORLP3MGR   ; SLC/AEB - Manager Options - Patient List Defaults;9/22/97
ORLP3U1    ; slc/CLA - Utilities which support OE/RR 3 Team/Patient Lists ;12/15/
ORLP3USR   ; SLC/AEB,CLA -User Options - Pt. List Defaults;9/22/97
ORLPAUT0   ; slc/CLA -  Automatically load patients into lists ;2/12/92
ORLPL      ; slc/CLA - Display/Edit Patient Lists; 8/8/91
ORLPR      ; slc/CLA - Report formatter for patient lists ;11/27/91
ORLPR0     ; slc/CLA - Report formatter for patient lists ;11/27/91
ORLPURG    ; slc/dcm - Purge Patient Lists ;8/13/90  12:27
ORM        ; SLC/MKB - ORM msg router ;5/19/97  14:21
ORMBLD     ; SLC/MKB - Build outgoing ORM msgs ;1/13/98  11:13
ORMBLDAL   ;SLC/MKB,JFR-Build outgoing GMRA ORM msgs ;7/14/98  15:44
ORMBLDFH   ; SLC/MKB - Build outgoing Dietetics ORM msgs ;2/10/97  16:01
ORMBLDGM   ;SLC/MKB-Build outgoing GMR* ORM msgs ;7/14/98  15:44
ORMBLDLR   ; SLC/MKB - Build outgoing Lab ORM msgs ;2/25/97  11:02
ORMBLDOR   ; SLC/MKB - Build outgoing OR msgs ;3/5/97  11:37
ORMBLDPS   ;SLC/MKB-Build outgoing Pharmacy ORM msgs ;6/9/97  09:23
ORMBLDRA   ; SLC/MKB - Build outgoing Radiology ORM msgs ;2/5/97  12:37
ORMEVNT    ;SLC/MKB-Trigger HL7 msg off MAS events ;7/14/97  09:06
ORMFH      ; SLC/MKB - Process Dietetics ORM msgs ;7/16/97  10:53
ORMFN      ; SLC/MKB - MFN msg router ;10/25/97  16:39
ORMGMRC    ; SLC/MKB - Process Consult ORM msgs ;7/16/97  10:49
ORMLR      ; SLC/MKB - Process Lab ORM msgs ;1/13/98  14:59
ORMLR1     ; SLC/MKB - Process Lab ORM msgs cont ;3/20/97  08:22
ORMORG     ; SLC/MKB - Receive Generic Orders messages ;3/12/97  10:53
ORMPS      ; SLC/MKB - Process Pharmacy ORM msgs ;7/16/97  10:38
ORMPS1     ; - Process Pharmacy ORM msgs cont ;6/30/97  10:27
ORMRA      ; SLC/MKB - Process Radiology ORM msgs ;7/16/97  10:44
ORMTIM01   ; RJS/SLC-ISC - PROCESS TIME BASED EVENT ;6/01/98  11:31
ORMTIM02   ; RJS/SLC-ISC - PROCESS TIME BASED EVENT (FAILSAFE) ;5/11/98  14:40
ORMTIME    ; RJS/SLC-ISC - PROCESS TIME BASED EVENT ;5/11/98  14:40
ORPFCNVT   ; SLC/AEB - Convert Order Parameter File (100.99) to Parameter Definit
ions(8989.51) ;3/17/97  12:17
```

```
ORPR00     ; slc/dcm - Prints Charming ;3/30/92  15:54
ORPR01     ; slc/dcm - Some day my prints will come ;6/10/97  15:35
ORPR02     ; slc/dcm - Dances with Prints ;8/1/97  10:41
ORPR03     ; slc/dcm - While you were printing ;6/10/97  15:35
ORPR04     ; slc/dcm - Chart house ;6/10/97  15:36
ORPR05     ; slc/dcm - When you are in the Service copies... ;6/10/97  15:36
ORPR06     ; slc/dcm - Rent a Requisition ;6/10/97  15:36
ORPR07     ; slc/dcm - Printless in Tuscaloosa ;6/10/97  15:36
ORPR08     ; slc/dcm - Work Copies ;6/10/97  15:37
ORPRS01    ; slc/dcm - Hot'n Summary Report utilities ;6/10/97  15:37
ORPRS02    ; slc/dcm - Jurasic Prints ;11/18/96  20:20
ORPRS03    ; slc/dcm - (@) Formerly known as prints ;6/10/97  15:40
ORPRS04    ; slc/dcm - Print Order summaries (SHRIVELED) ;6/10/97  15:42
ORPRS05    ; slc/dcm - Order summary headers, footers, inerds ;6/10/97  15:42
ORPRS06    ; slc/dcm - Driving Miss ChartCopy ;6/10/97  15:42
ORPRS07    ; slc/dcm - Managing multiple reportz ;6/10/97  15:43
ORPRS08    ; slc/dcm - Nightly Order Summary Task ;6/10/97  15:45
ORPRS09    ; slc/dcm - The print s ndap ;6/10/97  15:33
ORPRS10    ; slc/dcm - Summary time, when the livin is easy... ;6/10/97  15:47
ORPRS11    ; slc/dcm - Alternate life style for Summary Reports ;6/10/97  15:48
ORPRS12    ; slc/dcm - Interactive Chart Sum by loc, pat or chris ;6/10/97  15:50
ORPRS13    ; slc/dcm,JER - Health Summary Report & Driver (HSR&D) ;6/10/97  15:52
ORPRS14    ; slc/dcm,JER - Show me your vitals ;6/10/97  15:53
ORQ1       ;slc/dcm-Get orders for a patient. ;6/26/96  12:52
ORQ10      ; slc/dcm - Test this utility
```

Routine	Description

ORQ11   ;slc/dcm-Get patient orders in context ;11/18/96 17:45

ORQ12   ; slc/dcm - Get patient orders in context ;4/10/97 07:09

ORQ2   ; SLC/MKB - Detailed Order Report ;8/5/97 12:45

ORQ20   ; SLC/MKB - Detailed Order Report cont ;8/5/97 11:13

ORQOR1   ; slc/CLA - Functions which return order information ;12/15/97 [04/02

ORQOR2   ; slc/CLA - Extrinsic functions which return order information ;6/14/9

ORQORB   ; slc/CLA - Functions which return OE/RR Notification information ;12/

ORQPT   ; SLC/MKB - Patient Selection ;8/8/97 13:07

ORQPT1   ; SLC/MKB - Change Patient Selection List ;1/10/97 13:41

ORQPT2   ; HIRMFO/DAD-Patient Look-Up Security Check and Notification ;1/31/97

ORQPTQ1   ; slc/CLA - Functs which return OR patient lists and sources pt 1 ;12/

ORQPTQ11   ; slc/CLA - Functs which return patient lists and sources pt 1B ;12/15

ORQPTQ2   ; slc/STAFF - Functions which return patient lists and list sources pt

ORQPTQ3   ; slc/CLA - Functions which return patient demographic data ;12/15/97

ORQPTQ4   ; slc/CLA - Extrinsic functions for patient information ;12/15/97

ORQQAL   ; slc/staff - Functions which return patient allergy data ;9/18/97 [0

ORQQCN   ; slc/CLA/REV - Functions which return patient consult requests and
             results ;04/02/98 06:04:02

ORQQCN1   ; slc/REV - Functions for GUI consult actions - RPCs for GMRCGUIA ;5/2

ORQQCN2   ; slc/REV - Functions for GUI consult actions ;05/21/98

ORQQLR   ; slc/STAFF - Functions which return patient lab results ;12/15/97 [0

ORQQLR1   ; slc/CLA - Extrinsic functions and procedures which return patient lab
             results ;7/23/96 12:47

ORQQPL   ; slc/CLA/REV - Functions which return patient problem list data ;12/1

ORQQPL1   ; ALB/PDR/REV - PROBLEM LIST FOR CPRS GUI ; Mar 6, 1998

ORQQPL2   ; RPCs FOR CPRS GUI IMPLEMENTATION ;12/15/97

ORQQPL3   ; ALB/PDR ; Problem List RPC's ; 11/96

ORQQPP   ; slc/CLA - Functions which return patient postings ;12/15/97

ORQQPS   ; slc/STAFF - Functions which return patient medication data ;12/15/97

ORQQPX   ; slc/CLA - Functions which return PCE data ;12/15/97 [04/02/97 3:54

ORQQRA   ; slc/CLA - Functions which return patient radiology/nuclear med data

ORQQVI   ; slc/STAFF - Functions which return patient vital and I/O data ;5/20/

ORQQVI1   ;SLC/STAFF- Vitals rpc grid ;9/10/97 16:07

ORQQVI2   ;SLC/dee- RPC calls to GMRVPCE0, Vitals data event drivers ;2/2/98

ORQQVS   ; slc/STAFF - Functions which return patient visits ;8/19/98@13:36:57

ORQQXQA   ; slc/CLA - Functions which return patient/user alert and mailman data

ORSET98   ; slc/KCM - Set up display group file ;10/25/97 15:11

ORSETUP   ; SLC/MKB - OE3 Setup post-init ;7/26/97 15:51

ORSETUP1   ; SLC/MKB - OE3 Setup post-init cont ;2/5/97 11:28

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ORSLTR    ; slc/RWF - Print Big Letters ;4/30/92  14:47 ;
ORSLTR2   ; slc/dcm - Setup letters ;7/29/91  10:33 ;
ORTASK    ; slc/dcm - Tasked Nightly Clean-up
ORTASK01  ; SLC/RJS - Look for orders to purge;9/05/97  07:41
ORU       ; slc/dcm,JER - OE/RR Functions ;6/1/92  09:13
ORU1      ; slc/JER - More OE/RR Functions ;9/27/93  09:55
ORU2      ; slc/dcm - More OE/RR Utilities ;1/21/92  16:08
ORU3      ; slc/dcm - Even more OE/RR Utilities
ORUDPA    ; slc/dcm,RWF - Object (patient) lookup ;10/7/91  15:21 ;
ORUH      ; slc/JER - XECUTABLE HELP for format functions ;10/3/91  15:05
ORUHDR    ; slc/dcm - Order entry display headers ;3/25/92  15:05 ;
ORULG     ; SLC/KER/JVS - COLUMNAR GLOBAL LISTING BY PIECE ;; 08-19-92
ORUPREF1  ; slc/dcm - Key allocation ;12/11/91  08:12
ORUS      ; slc/KCM - Display List of Items ;6/2/92  08:09
ORUS1     ; slc/KCM - Select Items from List ;3/24/92  08:56
ORUS2     ; slc/KCM - Process Selected Items ;11/7/90  18:21 ;
ORUS3     ; slc/KCM - Help for Display Lists ;11/7/90  16:57
ORUS4     ; slc/KCM - Select Items from List ;11/7/90  16:30 ;
ORUS5     ; slc/KCM - Display List of Items ;1/3/91  10:01 ;
ORUTL     ; slc/dcm,RWF - Order utilities; ;1/10/91  16:48 ;
ORUTL1    ; slc/dcm - OE/RR Utilities ;6/7/91  08:47
ORVOM     ; slc/dcm - Generate ONITS- for OE/RR ;1/22/91  15:39
ORVOM0    ; slc/dcm - Gathers parts to send ;1/23/91  06:47 ;
ORVOM1    ; slc/dcm - Creates rtns for Protocol export ;1/23/91  07:13
ORVOM11   ; slc/dcm - Creats RTN ending in ONIT1 ;1/22/91  15:53
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Routine	Description

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ORVOM2    ; slc/dcm - Creates rtns ending in 'ONIT1' ;12/11/90  14:28
ORVOM3    ; slc/dcm - Creates rtn ending in 'ONIT2' ;1/23/91  07:15
ORVOM4    ; slc/dcm - Creates rtn ending in 'ONIT3' ;9/16/91  15:51 ;
ORVOM5    ; slc/dcm - ONIT creation ;1/14/91  09:55 ;
ORVOM6    ; slc/dcm - ONIT creation ;12/11/90  14:30 ;
ORVOMH    ; slc/dcm - Help for ORVOM ;12/11/90  14:30 ;
ORWCH     ; SLC/KCM - GUI calls specific to CPRS Chart;01:34 PM  15 Dec 1997
ORWCS     ; ALB/MJK - Consult Tab Calls ;9/18/96  15:02
ORWCSP    ; ALB/MJK - Background Consult Report Print Driver ;1/24/95  15:49
ORWCV     ; SLC/KCM - Background Cover Sheet Load;12:31 PM  19 May 1998
ORWD      ; SLC/KCM - Utilities for Windows Dialogs ;7/26/96  17:53 [ 11/19/96
ORWD1     ; SLC/KCM - GUI Prints
ORWDCN32  ; SLC/KCM/REV - Consults calls [ 12/16/97  12:47 PM ] ; 3/9/98 11:02:4
ORWDCSLT  ; SLC/KCM - Consults calls [ 08/04/96  7:36 PM ]
ORWDFH    ; SLC/KCM - Diet Order calls for Windows Dialogs ;12:51 AM  21 Jul 199
ORWDGX    ; SLC/KCM - Generic Orders calls for Windows Dialogs [ 08/05/96  8:21
ORWDLR    ; SLC/KCM - Lab Calls [ 08/04/96  8:47 PM ]
ORWDLR32  ; SLC/KCM/REV - Lab Calls [ 01/30/98 5:47 AM ]; 10:50 AM Sep 18, 1998
ORWDOR    ; SLC/KCM - Generic Orders calls for Windows Dialogs [ 08/05/96  8:21
ORWDPS    ; SLC/KCM - Pharmacy Calls for Windows Dialog [ 08/04/96  6:57 PM ]
ORWDPS32  ; SLC/KCM - Pharmacy Calls for GUI Dialog [ 08/04/96  6:57 PM ];02:03
ORWDRA    ; SLC/KCM - Radiology calls to support windows [ 08/03/96  6:42 PM ]
ORWDRA32  ; SLC/KCM/REV - Radiology calls to support windows [25-MAR-1998 08:03
ORWDVAL   ; SLC/KCM - Validate procedures
ORWDX     ; SLC/KCM - Utilities for Order Dialogs ;11:58 PM  6 Sep 1998
ORWDXA    ; SLC/KCM - Utilites for Order Actions;06:22 PM  2 Sep 1998;2/23/98  1
ORWDXM     ; SLC/KCM - Order Dialogs, Menus;10:42 AM  6 Sep 1998
ORWDXQ    ; SLC/KCM - Utilities for Quick Orders;06:18 PM  27 Apr 1998
ORWDXR    ; SLC/KCM - Utilites for Order Actions;05:33 AM  20 May 1998;2/23/98
ORWIB     ; SLC/KCM - wrap calls to AISC
ORWLR     ; SLC/KCM,ALB/MJK - Lab Calls ;7/20/96  15:02 [ 02/14/97  5:49 PM ]
ORWLRR    ;SLC/STAFF- rpc routing for lab results ;12/12/97  14:21
ORWMC     ; slc/dcm -Medicine Calls ;4/2/98  15:02
ORWOR     ; SLC/KCM - Orders Calls;10:54 PM  26 Feb 1998
ORWORB    ; slc/dee - RPC functions which return user alert ;6/10/98
ORWORDG   ; SLC/KCM - Organize display groups;11:25 AM  11 Mar 1998
ORWORR    ; SLC/KCM - Retrieve Orders for Broker ;11:27 AM  19 Jul 1998
ORWPCE    ; SLC/KCM - wrap calls to PCE and AICS;9/2/98
ORWPCE1   ;SLC/KCM - PCE Calls from CPRS GUI;June 16, 1998
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ORWPCE2   ; ISL/dee - wrap calls to PCE ;3/13/98
ORWPCE3   ; SLC/KCM - Get a PCE encounter for a TUI document;9/18/98
ORWPS     ; SLC/KCM - Meds Tab;03:34 AM  9 May 1998
ORWPT     ; SLC/KCM/REV - Patient Lookup Functions ;7/1/98@10:06:43
ORWPT1    ; SLC/KCM - Patient Lookup Functions (cont) ;03:55 PM  31 Aug 1998
ORWPT16   ; SLC/KCM - Patient Lookup Functions - 16bit ;7/20/96  15:43
ORWRA     ; ALB/MJK/REV -Imaging Calls ;04/08/98  08:17
ORWRAP    ; ALB/MJK - Background Imaging Report Print Driver ;1/24/95  15:49
ORWRP     ; ALB/MJK,dcm Report Calls ;9/18/96  15:02
ORWRP1    ; ALB/MJK,dcm Report Calls ;9/18/96  15:02
ORWRP16   ; ALB/MJK Report Calls - 16bit ;5/22/97  19:13
ORWRPP    ; ALB/MJK - Background Report Print Driver ;1/24/95  15:49
ORWSETUP       ; SLC/KCM - setup utilities for GUI;01:58 AM  21 Jul 1998
ORWU      ; SLC/KCM - General Utilites for Windows Calls;12:20 AM  7 Sep 1998
ORWU16    ; SLC/KCM - General Utilites for Windows Calls 16bit
ORWUH     ; SLC/KCM - Help Utilities
ORWUPHS   ;SLC/RAB - Parameter utilities
ORWUPX    ; Export Package Level Parameters ; Sep 07, 1998@15:17:43
ORWUPX01  ; ; Sep 07, 1998@15:17:43
ORWUPY    ; Export Package Level Parameters ; Jul 21, 1998@19:13:39
ORWUPY01  ; ; Jul 21, 1998@19:13:39
ORWUX     ; SLC/KCM - Development Utilities
ORWUXT    ; SLC/KCM - General Utilites for Windows Calls;12:27 AM  7 Sep 1998
ORWZ      ; SLC/KCM - Temporary Fixes [ 11/21/96  6:22 PM ];06:22 PM  30 Jan 199
ORX       ; slc/dcm - OE/RR old entry points ;12/26/96  09:49
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Routine   Description

Routine	Description
ORX1	; slc/dcm - OE/RR Nature of Order entry points ;12/26/96 09:49
ORX2	; slc/dcm - OE/RR Patient lock entry points ;7/2/96 08:44
ORX3	; slc/CLA - Support reference (DBIA #868) for notifications ;11/19/96
ORX4	; SLC/MKB - OE/RR Orders file extract utilities ;9/30/97 14:58
ORX8	; slc/dcm - Get data from file 100 ;2/9/98 10:02
ORXD	;SLC/MKB-OE/RR Order Dialog entry points ;3/25/97 09:46
ORXP	; SLC/KCM - Parameters File Calls
ORXPAR	; Export Package Level Parameters ; Dec 17, 1997@11:35:35
ORXPAR01	; ; Dec 17, 1997@11:35:35
ORXPAR02	; ; Dec 17, 1997@11:35:35
ORXPAR03	; ; Dec 17, 1997@11:35:35
ORXPAR04	; ; Dec 17, 1997@11:35:35
ORXPAR05	; ; Dec 17, 1997@11:35:35
ORXPAR06	; ; Dec 17, 1997@11:35:35
ORXPAR07	; ; Dec 17, 1997@11:35:35
ORXPAR08	; ; Dec 17, 1997@11:35:35
ORXPAR09	; ; Dec 17, 1997@11:35:35
ORY10	; SLC/KCM - Patch 10 conversions ;03:16 PM 2 Sep 1998
ORY24	;SLC/MKB-Postinit for OR*3*24 ;4/16/98 16:18
ORY26	;SLC/MKB-Postinit for patch OR*3*26
ORY27	;SLC/MKB-Postinit for OR*3*27 ;5/11/98 08:28
ORY4	;SLB/MKB-postinit for OR*3.0*4 ;4/30/98 15:52
ORY7	;SLB/MKB-postinit for OR*3.0*7 ;3/20/98 14:45
ORY8	;SLC/MKB -- post-install for OR*3*8 ;4/13/98 08:52
ORYHFS	; ALB/MJK,dcm Report Calls ;9/18/96 15:02
ORZCDLR	;SLC/MKB-Utility functions for LR dialogs ;6/11/97 11:47
ORZCDLR1	;SLC/MKB-Utility fcns for LR dialogs cont ;2/19/98 09:00
ORZFIX	;alb/mli - fix x-refs in 100.21
ORZMSG	;SLC/MKB - cleanup for CPRS conversion ;2/11/98 12:32
ORZPOST	;SLB/MLI - post-install for CPRS ;1/16/98 10:53
ORZTEAM	; SLC/MLI - CPRS test site patch ; Oct 6, 1997
ORZTEAM1	; slc/mli - team list conversion from PCMM back to OR ; 10/8/97
ORZTEAM2	;SLC/MLI - team list fix for non-autolinked teams ; 28 Oct 97
ORZTEXT	; SLC/MKB - Clean up order text
ORZZCPRS	;SLC/KCM - Test CPRS Components
ORZZTEST	;SLC/KCM

605 ROUTINES

Menus and Options

Options

```
OCX EXPERT SYSTEM INQUIRE        OCX FUNCT LIB REPORT BRIEF

OCX FUNCT LIB REPORT EXT CALLS   OCX LOCAL TERM EDIT

OCX MAIN                         OCX RULE ACTIVATE

OCX RUN COMPILER                 OR ADD MENU CLINICIAN

OR ADD MENU NURSE                OR ADD MENU WARD CLERK

OR ADD ORDERS                    OR CPRS GUI CHART

OR MAIN MENU CLINICIAN           OR MAIN MENU NURSE

OR MAIN MENU WARD CLERK          OR OE/RR MENU CLINICIAN

OR OE/RR MENU NURSE              OR OE/RR MENU WARD CLERK

OR PARAM ADD MENU                OR PARAM CHART COPY

OR PARAM COORDINATOR MENU        OR PARAM IRM MENU

OR PARAM ORDER MISC              OR PARAM PRINTS

OR PARAM PRINTS (HOSP)           OR PARAM PRINTS (LOC)

OR PARAM REQ/LABEL               OR PARAM SERVICE COPY

OR PARAM SUMMARY REPORTS         OR PARAM WORK COPY

OR PROFILES                      OR RESULTS REPORTING

OR REVIEW ORDERS                 ORB NOT COORD MENU

ORB NOT MENU                     ORB NOT MGR MENU

ORB3 ALERT RECIPIENTS            ORB3 ARCHIVE PERIOD

ORB3 DEFAULT RECIPIENT DEVICES   ORB3 DEFAULT RECIPIENTS

ORB3 DELETE MECHANISM            ORB3 DETERMINE RECIPIENTS

ORB3 ERASE NOTIFICATIONS         ORB3 FLAG ORDERABLE ITEMS

ORB3 FLAGGED ORDERS BULLETIN     ORB3 FORWARD SUPERVISOR

ORB3 FORWARD SURROGATES          ORB3 PROCESSING FLAG

ORB3 PROVIDER RECIPIENTS         ORB3 REC ERASE NOTIFICATIONS

ORB3 REC FLG ORDERS BULLETIN     ORB3 REC PROCESSING FLAG

ORB3 REC RECIP NOTIFICATIONS     ORB3 REC SORT METHOD

ORB3 RECIP NOTIFICATIONS         ORB3 SORT METHOD

ORB3 SURROGATE RECIPIENT         ORB3 SYSTEM ENABLE/DISABLE

ORB3 URGENCY                     ORC DELAYED ORDERS

ORCL KEY ALLOCATION              ORCL MENU

ORCL ORDER REASON                ORCL PRINT FORMAT

ORCM MENU                        ORCM MGMT

ORCM ORDER SETS                  ORCM ORDERABLES

ORCM ORDERS                      ORCM PROMPTS
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ORCM PROTOCOLS                  ORCM QUICK ORDERS
ORDERS MENU                     ORE KEY CHECK
ORE LAB ORDER CHECKS            ORE LAB ORDERS CHECK 100=>69
ORE LAB ORDERS CHECK 69=>100    ORE MGR
ORK CLINICAL DANGER LEVEL       ORK CT LIMIT HT
ORK CT LIMIT WT                 ORK DEBUG ENABLE/DISABLE
ORK DUP ORDER RANGE LAB         ORK DUP ORDER RANGE OI
ORK DUP ORDER RANGE RADIOLOGY   ORK MRI LIMIT HT
ORK MRI LIMIT WT                ORK ORDER CHK MGMT MENU
ORK ORDER CHK RECIP MENU        ORK PROCESSING FLAG
ORK REC PROCESSING FLAG         ORK REC RECIP ORDER CHECKS
ORK RECIP ORDER CHECKS          ORK SYSTEM ENABLE/DISABLE
ORLP ADD CLINIC                 ORLP ADD LIST
ORLP ADD MENU                   ORLP ADD ONE
ORLP ADD PROVIDER               ORLP ADD SPECIALTY
ORLP ADD WARD                   ORLP CLEAR
ORLP DELETE                     ORLP DELETE PATIENT
ORLP EXAMINE/PRINT              ORLP LIST
ORLP LOAD                       ORLP MENU
ORLP MERGE                      ORLP PATIENT LIST MGMT
ORLP TEAM ADD                   ORLP TEAM DELETE
ORLP TEAM DELETE AUTOLINKS      ORLP TEAM DELETE PATIENTS
ORLP TEAM DELETE USERS          ORLP TEAM MENU
ORLP3M DEFAULT CLINIC FRIDAY    ORLP3M DEFAULT CLINIC MONDAY
```

Options, cont'd

```
ORLP3M DEFAULT CLINIC SATURDAY    ORLP3M DEFAULT CLINIC START DT
ORLP3M DEFAULT CLINIC STOP DT      ORLP3M DEFAULT CLINIC SUNDAY
 ORLP3M DEFAULT CLINIC THURSDAY    ORLP3M DEFAULT CLINIC TUESDAY
 ORLP3M DEFAULT CLINIC WEDNESDA    ORLP3M DEFAULT LIST ORDER
 ORLP3M DEFAULT LIST SOURCE        ORLP3M DEFAULT MGR MENU
 ORLP3M DEFAULT PROVIDER           ORLP3M DEFAULT SPECIALTY
 ORLP3M DEFAULT TEAM               ORLP3M DEFAULT WARD
 ORLP3M DISPLAY LIST SOURCE        ORLP3M USER PTS VIA TEAMS
 ORLP3M USER TEAMS                 ORLP3U DEFAULT CLINIC FRIDAY
 ORLP3U DEFAULT CLINIC MONDAY      ORLP3U DEFAULT CLINIC SATURDAY
 ORLP3U DEFAULT CLINIC START DT    ORLP3U DEFAULT CLINIC STOP DT
 ORLP3U DEFAULT CLINIC SUNDAY      ORLP3U DEFAULT CLINIC THURSDAY
 ORLP3U DEFAULT CLINIC TUESDAY     ORLP3U DEFAULT CLINIC WED
 ORLP3U DEFAULT LIST ORDER         ORLP3U DEFAULT LIST SOURCE
 ORLP3U DEFAULT PROVIDER           ORLP3U DEFAULT SPECIALTY
 ORLP3U DEFAULT TEAM               ORLP3U DEFAULT USER MENU
 ORLP3U DEFAULT WARD               ORLP3U DISPLAY LIST SOURCE
 ORLP3U USER PTS VIA TEAMS         ORLP3U USER TEAMS
 ORMGR                             ORPO MENU
 ORQ SEARCH RANGE A USER PARAM     ORQ SEARCH RANGE DIVISION PAR
 ORQ SEARCH RANGE LOCATION PAR     ORQ SEARCH RANGE MGR MENU
 ORQ SEARCH RANGE SERVICE PARAM    ORQ SEARCH RANGE SYSTEM PARAM
 ORQ SEARCH RANGE USER PARAM       ORS HEALTH SUMMARY
 ORTASK 24HR CHART COPIES          ORTASK 24HR SUMMARY
 ORTASK NICHT E                    ORTASK PURGE
 ORW HEALTH SUMMARY TYPES          ORW PARAM GUI
 ORW TOOL MENU ITEMS
```

Menu Assignment

CPRS Manager Menu [ORMGR MENU]

```
CL   Clinician Menu ...
NM   Nurse Menu ...
WC   Ward Clerk Menu ...
PE   CPRS Configuration Menu (Clin Coord)
IR   CPRS Configuration Menu (IRM)
```

We recommend that you assign menus as follows:

Menu Text	Option Name	Assignment
CPRS Manager Menu	ORMGR MENU	IRMS specialists assigned to CPRS
Clinician Menu	OR MAIN MENU CLINICIAN	Clinicians (physicians, psychologists, social workers, nurse practitioners, PAs, etc.)
Nurse Menu	OR MAIN MENU NURSE	Nurses
Ward Clerk Menu	OR MAIN MENU WARD CLERK	Ward Clerks, MAS personnel
CPRS Configuration Menu (Clin Coord)	ORCL MENU	Clinical Coordinators, ADPACS,
CPRS Configuration Menu (IRM)	ORE MGR	IRMS CPRS specialist (locked with XUPROG key)

CPRS Configuration Menu (Clin Coord)
[OR PARAM COORDINATOR MENU]

Menu Text	Option name	Description
Auto-DC Parameters	OR PARAM AUTODC	This option is for editing hospital-wide parameters that control how CPRS will automatically discontinue orders on patient movements.
Allocate OE/RR Security Keys	ORCL KEY ALLOCATION	This option lets Clinical Coordinators allocate security keys to CPRS clinicians, nurses, or ward clerks.
Check for Multiple Keys	OR PARAM SYSTEM	This menu, for IRMS and coordinators, lets you set various parameters, including order checking and notification parameters. It also lets you allocate security keys.
Edit DC Reasons	ORCL ORDER REASON	This option allows access to the Order Reason file to enter or edit reasons for discontinuing an order.
GUI Parameters	ORW PARAM GUI	Configuration parameters for the CPRS GUI
Miscellaneous Parameters	OR PARAM ORDER MISC	This option is for editing miscellaneous hospital wide CPRS parameters, such as active orders time range, grace days before purge, whether to automatically unflag orders, confirm providers, review on patient movement, etc.
Notification Mgmt Menu	ORB NOT COORD MENU	This menu is used by clinical coordinators and IRM staff to turn notifications on or off for a provider. It prompts the coordinator for the user, then calls other notification mgmt options. It also contains options that can purge existing notifications.
Order Checking Management …	ORK ORDER CHK MGMT MENU	Options on this menu allow IRMS to set order checking parameters for each of the possible entities: System, Division, Service, Location, Team, Class, or User, as applicable.
Order Menu Management …	ORCM MGMT	Options on this menu let you enter or edit orderable items, prompts, generic orders, quick orders, order sets, and order menus. It also lets you convert protocols.
Patient List Mgmt Menu..	ORLP PATIENT LIST MGMT MENU	This menu allows coordinators and IRMS to create and manage personal and patient team lists and to set default patient list parameters.
Print Formats	ORCL PRINT FORMAT	This option allows the user to define formats for printing labels and requisitions for orders.

Print/Report Parameters	OR PARAM PRINTS	This menu is for editing print parameters. It should be available to the clinical coordinator and IRM Staff.
Release/Cancel Delayed Orders	ORC DELAYED ORDERS	This option allows clinical coordinators to release or cancel orders that have been put on delay, but then weren't ever released for some reason.
Unsigned Orders Search	OR UNSIGNED ORDERS	This option provides the user with three choices to search for unsigned orders. Each search criteria will allow a choice of six sort parameters, a start date, an ending date, the option to print only the summary orders, and to select an output device.
Set Unsigned Orders View on Exit	OR PARAM UNSIGNED ORDERS VIEW	This option may be used to set the default view of unsigned orders that ORES key holders will see when exiting a patient's chart. Possible views are only those orders entered during the current session, all of the current user's unsigned orders, or all unsigned orders for the patient.
Search Orders by Nature or Status	OR NATURE/STATUS ORDER SEARCH	This option provides the user with a way to review orders by either the nature of the order or the status of the order. These options are generally used for quality assurance purposes to monitor ordering trends but may also be useful in meeting JCAHO requests

Unsigned Orders Search

This option provides the user with three choices to search for unsigned orders. Each search criteria will allow a choice of six sort parameters, a starting date, an ending date, the option to print only the orders summary, and an output device.

Search Criteria Option:

1. **Released/Unsigned:** These are orders that have been released to the service but remain unsigned by the requesting clinician. Only released but unsigned orders will be found using this search option.

2. **Unsigned:** These are orders that have not been signed by the requesting clinician, regardless of whether they have been released or not. This option will include all orders displayed in options 1 and 3.

3. **Unsigned/Unreleased:** These are orders that have not been released to the service and remain unsigned by the requesting clinician. Only unreleased and unsigned orders will be found using this search option.

Sort Criteria

1. **Service/Section**: This sort will allow the user to find unsigned orders for all service/sections, a single service/section, or multiple selected service/sections.

2. **Provider**: This sort will allow the user to find unsigned orders associated with all providers, a single provider, or multiple selected providers.

3. **Patient**: This sort will allow the user to find unsigned orders for all patients, a single patient, or multiple selected patients.

4. **Location:** This sort will allow the user to find unsigned orders associated with all locations, a single location, or multiple selected locations.

5. **Entered By**: This sort will allow the user to find unsigned orders entered by all entering persons, a single entering person, or multiple selected entering persons.

6. **Division**: This sort will allow the user to find unsigned orders for all divisions, a single division, or multiple selected divisions.

Starting Date: Enter the most recent date you would like the search to begin with. For example, if your site has a 48 hours grace period for signing orders, you can ignore those orders placed and left unsigned within the last 48 hours by entering a T-2 or a date/time. Entries in this field follow fileman conventions.

Ending Date: Enter the oldest date you would like the search to consider. For example, when running this option for the first time, you may want to use the date/time of the installation of CPRS onto your system in order to avoid listing left over orders from the previous version, OERR 2.5. Entries in this field follow fileman conventions.

Print Summary Only: Enter YES at this prompt to print only the final summary report astatistics of the orders count.

Device: The output of this option is formatted for 132-column and will be much easier to read if sent to a device capable of handling 132 or greater columns.

```
Select CPRS Configuration (Clin Coord) Option:  US  Unsigned orders search



                          Unsigned Orders Search
              This report is formatted for a 132 column output.


        Select one of the following:


           1          Released/Unsigned
           2          Unsigned
           3          Unsigned/Unreleased


Enter the type of orders to search: 2  Unsigned


        Select one of the following:


           1          Service/Section
           2          Provider
           3          Patient
           4          Location
           5          Entered By
           6          Division


Enter the sort criteria: 2  Provider
```

```
Would you like a specific Provider? NO//
Enter a starting date: T  (NOV 21, 2000)
Enter an ending date: T-30  (OCT 22, 2000)
Print summary only ? NO//
DEVICE: HOME// ;132;999  ANYWHERE
```

The resulting reports would appear similar to the following examples.

Report Date: Nov 21, 2000@10:43:05 Sort Range From: Nov 21, 2000   To: Oct 22, 2000

List of UNSIGNED orders by PROVIDER

PROVIDER	ENTERED BY	PATIENT	SSN	STATUS	ORDER #	ORDER DATE
DOCTOR,DAN	DOCTOR,DAN	JONES,BOB	1990	UNRELEASED	7095978	Nov 20, 2000
DOCTOR,BOB	DOCTOR,BOB	SMITH,SAM	1462	ACTIVE	7095976	Nov 17, 2000
DOCTOR,RUTH	DOCTOR,RUTH	SMITH,BILL	8322	DELAYED	7095935	Nov 06, 2000
DOCTOR,RUTH	DOCTOR,RUTH	SMITH,BILL	8322	DELAYED	7095936	Nov 06, 2000
DOCTOR,RUTH	DOCTOR,RUTH	SMITH,BILL	8322	DELAYED	7095937	Nov 06, 2000
DOCTOR,KEVIN	NURSE,NANCY	JONES,JIM	8832	ACTIVE	7095974	Nov 17, 2000

The following is an example of the data included on the report that is generated when you select "Print Summary Only."

Report Date: Nov 21, 2000@10:52:02 Sort Range From: Nov 21, 2000   To: Oct 22, 2000

Order Statistics for Provider sort

Provider	Patient	# of Orders
DOCTOR,DAN	JONES,BOB	1
	SUBTOTAL: 1	
DOCTOR,BOB	SMITH,SAM	1
	SUBTOTAL: 1	
DOCTOR,RUTH	SMITH,BILL	3
	SUBTOTAL: 3	
DOCTOR,KEVIN	JONES,JIM	1
	SUBTOTAL: 1	

	TOTAL: 6	

Search Orders by Nature or Status

This option provides the user with a way to review orders by either the nature of order or the status. These options are generally used for quality assurance purposes to monitor ordering trends but may also be useful in meeting JCAHO requests.

Search Criteria:

1. **Nature of Order**: This search criterion will enable the user to select one of the entries from the NATURE OF ORDER file. This will allow a report of orders based on a specific nature such as POLICY.

2. **Order Status**: This search criterion will enable the user to select one of the order statuses from the ORDER STATUS file. This will allow a report of orders based on a specific status such as DISCONTINUED/EDIT.

Starting Date: Enter the date that you wish to mark the beginning of the search period. This date needs to be earlier than the ending date. Enter an ^ to exit the option. Entries in this field follow Fileman conventions.

Ending Date: Enter the date that you wish to use to mark the end of the search period. This date needs to be more recent than the start date. Enter an ^ to exit the option. Entries in this field follow Fileman conventions.

Output Format: The user has the choice of two output formats.

1. **Detailed format**: This format will provide information from the following fields:

    ORDER STATUS: This field will display the status of the order.

    ORDER ACTION: This field will display the action to be taken on the order. Type a question mark to view a list of possible entries.

    ORIFN: This is the internal entry number of the order from File 100. This number is equivelent to the ORDER # in the detailed display while in CPRS. When you use Fileman to edit an order in File 100, type a reverse apostrophy (`) before the number to jump directly to the order.

    OBJECT OF ORDER: This is the patient's name

    SSN: This will display the last four of the patient's Social Security number.

    ORDERED BY: This will display the name of the user who originated the order.

    VEILED: Orders placed prior to OERR 3.0 may have this field set to YES which hides the order from the end users. You must use Fileman to set this field to NO in order gain access to it thru CPRS.

    ENTERED BY: This will display the name of the user who entered the order.

    RELEASED BY: This will display the name of the user who released the order.

    SIGNED BY: This will display the name of the user who signed the order.

ORDER TEXT: This will disaplay the text of the order.

2.   **Columnar format:** This format choice will produce an output similar to the unsigned orders format only with the following headings:

- Provider
- Patient
- SSN
- Status
- Order #
- Order Date
- Signed

Output by Service prompt: Entering a YES at this prompt will allow the user to sort the output by service section for all service sections, a single service, or multiple selected services.

Specific SERVICE/SECTIONS prompt: Entering a NO at this prompt will, by default, select all services. Entering a YES at this prompt will allow the user to enter a single service or a combination of services

Device: When using the columnar format, it is best viewed using a device capable of displaying a 132-column format. The detailed display will work well with an 80-column display.

```
 Select CPRS Configuration (Clin Coord) Option: NA  Search Orders by Nature or Status




                    Nature of Order or Order Status Search.
                This report is formatted for 132 column output.


        Select one of the following:


            1           Nature of order
            2           Order Status


Enter the search criteria: 2  Order Status
Select Order Status: DISCONTINUED/EDIT       dce
Enter a starting date: T-30  (OCT 28, 2000)
Enter a ending date: T  (NOV 27, 2000)


        Select one of the following:
            1           Detailed format
            2           Columnar format


Select output format: 2  Columnar format
Would you like to sort the output by service? NO// YES
Would you like to search for specific SERVICE/SECTIONS? NO//
DEVICE: HOME// ;132;999  ANYWHERE
```

The resulting report would appear similar to the following example.

```
Report Date: Nov 27, 2000@11:50:19

Sort Range From: Oct 28, 2000@23:59 TO: Nov 27, 2000@00:01

Search for orders with a status of DISCONTINUED/EDIT

Provider              Patient           SSN  Status           Order #   Order Date           Signed

-----------------------------------------------------------------------------------------------------------------------------------

Service/Section: OTHER

  Entered by: MIMS,PHARMACIST

NABER,DAVID A         TEST,JAMIE        3333  DISCONTINUED/E   7095898  Nov 02, 2000@13:18


  Entered by: NABER,DAVID A

NABER,DAVID A         SIMPSON,BART      4423  DISCONTINUED/E   7095944  Oct 23, 2000@15:12   Oct 23, 2000@15:15

NABER,DAVID A         TEST,JAMIE        3333  DISCONTINUED/E   7095858  Oct 30, 2000@09:28   Oct 30, 2000@09:29

NABER,DAVID A         TEST,JAMIE        3333  DISCONTINUED/E   7095290  Nov 02, 2000@13:02   Nov 02, 2000@13:05

NABER,DAVID A         TEST,JAMIE        3333  DISCONTINUED/E   7095098  Nov 02, 2000@13:30   Nov 02, 2000@13:33

NABER,DAVID A         TEST,JAMIE        3333  DISCONTINUED/E   7095299  Nov 02, 2000@13:32   Nov 02, 2000@13:36
```

CPRS Configuration (IRM) [OR PARAM IRM MENU]

Option	Menu Text	Description
OCX MAIN	Order Check Expert System Main Menu	These options are used for troubleshooting Order Checking and Notifications, for compiling the expert system rules, and for linking local terms with national terms for order checking.
ORMTIME MAIN	ORMTIME Main Menu	These options are intended for IRMS only, and are used in conjunction with the ORTASK routines.
ORE MGR	CPRS Clean-up Utilities	This menu contains an option that checks consistency between lab files and OE/RR files.
XPAR MENU TOOLS	General Parameter Tools	This menu contains general purpose tools for managing parameters.

CPRS Files

File #	File Name
100	ORDER
100.01	ORDER STATUS
100.02	NATURE OF ORDER
100.03	ORDER REASON
100.2	OE/RR PATIENT
100.22	OE/RR PRINT FIELDS
100.23	OE/RR PRINT FORMATS
100.24	OE/RR PT SEL COMBO
100.4	OE/RR ERRORS
100.8	ORDER CHECKS
100.9	NOTIFICATIONS
100.98	DISPLAY GROUP
100.99	ORDER PARAMETERS
101	PROTOCOL
101.41	ORDER DIALOG
101.42	ORDER URGENCY
101.43	ORDERABLE ITEMS
860.1	ORDER CHECK PATIENT ACTIVE DATA
860.2	ORDER CHECK RULE
860.3	ORDER CHECK
860.4	ORDER CHECK DATA FIELD
860.5	ORDER CHECK DATA SOURCE FILE
860.6	ORDER CHECK DATA CONTEXT
860.7	ORDER CHECK PATIENT RULE EVENT
860.8	ORDER CHECK COMPILER FUNCTIONS
860.9	ORDER CHECK LOCAL TERM
861	ORDER CHECK DEBUG
863	OCX MDD CLASS
863.1	OCX MDD APPLICATION
863.2	OCX MDD SUBJECT

863.3	OCX MDD LINK
863.4	OCX MDD ATTRIBUTE
863.5	OCX MDD VALUES
863.6	OCX MDD METHOD
863.7	OCX MDD PUBLIC FUNCTION
863.8	OCX MDD PARAMETER
863.9	OCX MDD CONDITION/ FUNCTION
864	OCX MDD SITE PREFERENCES
864.1	OCX MDD DATATYPE

File #	File Name
8989.5	PARAMETERS
8989.51	PARAMETER DEFINITION
8989.52	PARAMETER TEMPLATE
8989.53	PARAMETER ENTITY

File Descriptions

File #	File Name	Description
100	ORDER	This is the file of orders/requisitions made for any package through the Order Entry Option (OR).
100.01	ORDER STATUS	This file contains the possible statuses that may be associated with an order.
100.02	NATURE OF ORDER	This file should not be added to or deleted from. It determines the actions that are to be taken based on the nature of an order or change to an order. The file is initially populated with data that seems the most appropriate. Sites may find it necessary to change some of the fields for entries in this file.
100.03	ORDER REASON	This file is used to define the possible reasons for DC/ing/canceling an order. The entries are identified by package so that each package can have its own set of reasons. Sites may wish to modify the entries in this file to fit their needs. It is important to maintain the correct links to the Radiology Reason file if modifications are made. These links are maintained in the CODE field. For Radiology Reasons, the code field is the internal # of the Radiology Reason file, followed by the characters RA. This file points to the Nature of Order file. This relationship is what identifies the appropriate actions to take for any DC reason.
100.2	OE/RR PATIENT	This file is used in the CPRS application to lock and unlock a patient's record when orders are being created.
100.22	OE/RR PRINT FIELDS	Entries in this file with an internal number >1000 have been exported with the OE/RR package. Every time a new version of OE/RR is installed, the entries above are removed and overwritten. If you want to use one of these exported entries, transfer the entry to a number less than 1000 and give it a new name so that it can be differentiated

		from the exported entry.
100.23	OE/RR PRINT FORMATS	Entries in this file with an internal number >1000 have been exported with the OE/RR package. Every time a new version of OE/RR is installed the entries above 1000 are removed and overwritten. If you want to use one of these exported entries, transfer the entry to a number less than 1000 and give it a new name so that it can be differentiated from the exported entry.
100.24	OE/RR PT SEL COMBO	This file is used by CPRS to store a user's "Combination" default patient selection settings. It operates behind the scenes, and direct user access is neither provided nor provided.

File #	File Name	Description
100.4	OE/RR ERRORS	This file contains a record of events that failed or errored out during the use of OE/RR. This file is not to be edited. It is for debugging purposes. Entries in this file are automatically purged. The life of an entry depends on the parameter ERROR DAYS in the Parameters file.
100.8	ORDER CHECKS	This file contains the Order Checks used in CPRS.
100.9	OE/RR NOTIFICATIONS	This file contains data used to generate notifications. Packages determine if a notification should be sent, then send the patient ID and notification ID (IEN in this file) to order entry routines. Based on the notification IEN, data from this file is used to generate the notification and help determine its recipients.
100.98	DISPLAY GROUP	This file allows orders to be clustered in groups other than by package. It is similar in structure to the OPTION File (19). This allows display groups to be arranged in a hierarchy. The main entry in this file should be ALL SERVICES. Other entries should be logically subordinate to the ALL SERVICES entry.
100.99	ORDER PARAMETERS	This file contains site specific parameters for OE/RR. It has only one entry, Hospital.
101	PROTOCOL	This file contains the orderables and methods for accomplishing orders

(protocols) within CPRS. |
101.41	ORDER DIALOG	This file contains the information needed to define how to prompt for each order, what values are acceptable, etc.
101.42	ORDER URGENCY	This file contains the urgencies to assign to an order.
101.43	ORDERABLE ITEMS	This file contains the orderable items to use in CPRS.
860.1	ORDER CHECK PATIENT ACTIVE DATA FILE	This file temporarily holds patient data that is used to trigger rules.

This file is only edited by the compiled inferencing routine. |
| 860.2 | ORDER CHECK RULE | This file holds the rules that determine the conditions necessary for a notification or some other action to be performed. Rules consist of a set of Conditional Elements and a set of Element relationship expressions. When an element is found to be TRUE for a patient, it is compared to the other TRUE elements for the patient by evaluating all the Element relation expressions that contain it. If an expression is found to be TRUE then all of the actions defined for that relation are performed. |

860.3	ORDER CHECK ELEMENT	This file holds the definitions for the rule elements. A rule element consists of a set of boolean expressions. This takes the form of Data Field -> Comparison Operator -> 1 or 2 Comparison fields depending on the Operator.

File #	File Name	Description
860.4	ORDER CHECK DATA FIELD	This file holds a list of all data fields known to the order check system. It is also the link to the metadictionary, where the Order check system goes to get navigation and data type information.
860.5	ORDER CHECK DATA SOURCE	This file is just for documentation so the rule editor can keep data fields manageable.
860.6	ORDER CHECK DATA CONTEXT	This file keeps a list of data contexts. A rule event/element can only compare data fields from the same context. A context may involve several data sources. For example the data context of 'HL7' has a data source for each hl7 segment.
860.7	ORDER CHECK PATIENT RULE EVENT	This is a short term data archive that holds historical information about triggered rules.
860.8	ORDER CHECK COMPILER FUNCTIONS	
860.9	ORDER CHECK NATIONAL TERM	This file holds names of national terms used for order checking; these must be matched to local terms from the Orderable Item or Laboratory Test files.
861	ORDER CHECK RAW DATA LOG	This file is used primarily by developers and IRM staff to troubleshoot HL7 and other related problems.
863	OCX MDD CLASS	Metadictionary classes
863.1	OCX MDD APPLICATION	Metadictionary file
863.2	OCX MDD SUBJECT	Metadictionary
863.3	OCX MDD LINK	Metadictionary
863.4	OCX MDD ATTRIBUTE	Metadictionary
863.5	OCX MDD VALUES	Metadictionary
863.6	OCX MDD METHOD	Metadictionary
863.7	OCX MDD PUBLIC FUNCTION	Metadictionary
863.8	OCX MDD PARAMETER	Metadictionary
863.9	OCS MDD CONDITION/FUNCTION	Metadictionary
864	OCX MDD SITE PARAMETERS	Metadictionary control file used by developers

| 864.1 | OCX MDD DATATYPE | Metadictionary |

Cross-References

The following unique cross-references are included in CPRS.

ORDER File (#100)

AC	This is the individual object of the order. Depending on the parent file entry, this would be the Patient, Control Point, etc.
AV	Allows retrieval of orders associated with a patient MAS movement.
AS	Used to identify unsigned orders.
AW	For sorting by display group
AO	Allows retrieval of patients for whom this item has been ordered.
ACT	Allows retrieval of orders by patient, inverse-date of action, and display group.
AE	Allows retrieval of orders by expiration date; set only for orders that have not already completed, expired, or been discontinued or canceled .

OE/RR PATIENT (100.2)

AHLD	Locks patient orders to prevent simultaneous editing

NOTIFICATIONS (100.9)

E	used to look-up users/recipients who have indicated they want to receive the notification.

ORDER DIALOG (101.41)

DAD	This MUMPS-type cross-reference allow retrieval of "child" prompts in sequence by parent.

ATXT   Used to build order text.

AC   The "AC" cross-reference puts in window controls in order by creation sequence

ORDER URGENCY (101.42)

ORDER CHECK PATIENT ACTIVE DATA (860.1)

TIME

ORDER CHECK PATIENT ACTIVE DATA (860.2)

ATELM

ORDER CHECK PATIENT ACTIVE DATA (860.3)

APGM

ORDER CHECK DATA CONTEXT (860.7)

AT

OCX MDD CLASS (863)

ACLS	Parent of Subclass
APAR	Index to rapidly find the parameters in this class
MN	Used to rapidly look up a class by its mnemonic
UID	Enables rapid lookup of an object by its UID

OCX MDD APPLICATION (863.1)

APAR	Index to rapidly find the parameters associated with this class
SYN	Look up the application by its synonym

^^TRIGGER^863.1^4 Triggers a unique ID for this object

OCX MDD SUBJECT (863.2)

APAR   Index to rapidly find the parameters in this class

UID   Enables rapid lookup of an object by its UID

SYN   This index supports a synonym lookup of the subject

OCX MDD LINK (863.3)

AC   Rapidly identify links associated with a descendant subject

AE   Rapidly identify links associated with a parent menu group

AD   Rapidly find links associated with an attribute

ALO

F
SYN   This index supports synonym lookup

APAR   Index to rapidly find the parameters associated with this class

UID   Enables rapid lookup of an object by its UID

OCX MDD ATTRIBUTE (863.4)

APAR   Rapidly identify parameters associated with this class

AP   Quickly find the offspring of an attribute

UID   Enables rapid lookup of an object by its ID

OCX MDD VALUES (863.5)

AC   Rapidly associate a list of values with a context name

APAR   Rapidly identify all parameters associated with this class

OCX MDD METHOD (863.6)

AC   Rapidly associate a list of values with a context name

APAR   Rapidly identify all parameters associated with this class

UID   Enables rapid lookup of an object by its ID

OCX MDD PUBLIC FUNCTION (863.7)

^^TRIGGER^863.6^4 Triggers a unique ID

APAR   Rapidly identify all parameters associated with this class

UID   Enables rapid lookup of an object by its ID

OCX MDD PARAMETER (863.8)

^^TRIGGER^863.8^3 Triggers a unique object ID

DD   Identifies the set of "primary" parameters; i.e., those which define

                         other parameters

UID   Enables rapid location of an object by its ID

APAR   Rapidly identify all parameters associated with this file

OCS MDD CONDITION/FUNCTION (863.9)

^^TRIGGER^863.9^3 Triggers a unique ID for an object

AFUN   Rapidly identify conditions associated with a certain function

APAR   Rapidly identify all parameters associated with this class

SYN   This index supports synonym lookup

UID   Enables rapid lookup of an object by its ID

Archiving and Purging

Archiving utilities are not provided for the distributed files. Therefore, archival copies must be produced from the printed chart by methods familiar to your HIM Service (e.g., microfiche).

Purge Options

 ORTASK NIGHT E Nightly clean-up run routine

 ORTASK PURGE Old Orders Batch Purge run routine

This is a purge of all orders that have a "Last Activity Date" of more than the number of "Grace days" ago. It also checks to make sure the orders that are purged are 'Child' orders, have an order start date in the past, and have a "Terminal" status.

As this option scans the entire Orders file, it should be scheduled to run after hours.

The ORDERS file (100) contains all the orders placed on the system. Unless otherwise specified by a package, all orders have a grace period of 30 days from the date completed or expired before they are purged. The option ORTASK PURGE in the OPTION file (19) can be set up to run nightly to purge old orders from file 100. Only orders that have been inactive for the specified grace period and meet predefined criteria of the package that created the order are deleted.

The *Miscellaneous Parameters* option on the CPRS Configuration (Clin Coord) menu [OR PARAM COORDINATOR MENU] contains the parameter, GRACE DAYS BEFORE PURGE, that allows IRMS or Clinical Coordinators to change the number of days before orders are purged.

While the purge utility is running, statistics about orders are compiled and sorted in the ORDER STATISTICS file (100.1).

Purging and Archiving, cont'd

Miscellaneous Parameters Example

```
Select CPRS Configuration (Clin Coord) Option: MI  Miscellaneous Parameters


Miscellaneous OE/RR Definition for System: OEX.ISC-SLC.VA.GOV
--------------------------------------------------------------------------
Active Orders Context Hours                     8
Auto Unflag                                     YES
Confirm Provider                                YES (Exclude ORES)
Default Provider                                YES
Error Days                                      2
Grace Days before Purge                         30
Restrict Requestor                              YES (ORELSE & OREMAS)
Review on Patient Movement                      YES
Show Status Description                         YES
Signed on Chart Default                         NO
--------------------------------------------------------------------------
ACTIVE ORDERS CONTEXT HOURS: 8//
AUTO UNFLAG: YES//
CONFIRM PROVIDER: YES (Exclude ORES)//
DEFAULT PROVIDER: YES//
ERROR DAYS: 2//
GRACE DAYS BEFORE PURGE: 30// ??


This parameter is the number of days that should pass before an order is
purged. Only orders with a status of discontinued, complete, expired,
cancelled, changed, and lapsed will be purged.


GRACE DAYS BEFORE PURGE: 30//
RESTRICT REQUESTOR: YES (ORELSE & OREMAS)//
REVIEW ORDERS ON PATIENT MOVEMENT: YES//
SHOW STATUS DESCRIPTION: YES//
SIGNED ON CHART DEFAULT: NO//
```

External Relations

Before CPRS can be installed, the following packages and patches must be installed and *fully* patched in your accounts.

Application Name	Minimum Version
Automated Information Collection System (AICS)	V 3.0
Adverse Reaction Tracking (ART)	V 4.0
Authorization/Subscription Utility (ASU)	V 1.0
**Consolidated Mail Outpatient Pharmacy (CMOP)	V 2.0
*Consult/Request Tracking	V 2.5
Dietetics	V 5.0
Gen. Med. Rec.-Vitals	V. 3.0
Health Summary	V. 2.7
HL7	V. 1.6
Integrated Funds Distribution, Control Point Activity, Accounting & Procurement (IFCAP)	V. 4.0
*Inpatient Medications (IM)	V. 4.5
Integrated Billing (IB)	V. 2.0
Kernel	V. 8.0
Laboratory	V. 5.2
Lexicon Utility	V. 2.0
National Drug File (NDF)	V. 3.17
*Order Entry/Results Reporting (OE/RR)	V. 2.5
*Outpatient Pharmacy	V. 6.0
Patient Care Encounter (PCE)	V. 1.0
Pharmacy Data Management (PDM)	V. 1.0
Problem List	V 2.0
Radiology/Nuclear Medicine	V 4.5
RPC Broker	V 1.1
Registration	V 5.3
Scheduling	V 5.3
Text Integration Utilities (TIU)	V 1.0
ToolKit	V. 7.3

VA FileMan	V. 21.0
Visit Tracking	V 2.0

* If the package is installed on your system prior to CPRS, the required version and patches must be installed. If they are not installed, the package will be installed with CPRS.

** Patch PSX*2*3 is required if you have CMOP installed.

Database Integration Agreements

Database Integration Agreements (DBIA) are available on the DBA menu on Mailman.

Callable routines, entry points, Application Program Interfaces (APIs), and Remote Procedure Calls (RPCs) can be subscribed to. Lists of these will be available on the DBA menu on the Forum.

CPRS Remote Procedure Calls (RPCs)

A remote procedure call (RPC) is M code that can take optional parameters to do some task and then return either a single value or an array to the client application. In the message sent to VISTA, client applications will include the name of the requested RPC to be activated. These RPCs will be registered in the REMOTE PROCEDURE file (#8994) containing available and authorized RPCs.

The following four "key" fields of the REMOTE PROCEDURE file (#8994) must be populated:

Field Name	Entry	Description
NAME (#.01)	Required	The name that identifies the RPC (this entry should be namespaced in the package namespace).
TAG (#.02)	Required	The tag at which the remote procedure call begins.
ROUTINE (#.03)	Required	The name of the routine which should be invoked to start the RPC.
RETURN VALUE TYPE (#.04)	Required	This indicates to the Broker how to format the return values. For example, if RETURN VALUE TYPE is WORD PROCESSING, then each entry in the returning list will have a <CR><LF> (<carriage return><line feed>) appended.

How To Register An RPC

Because of security concerns, all RPCs run via the RPC Broker and used internally by any VISTA package must be "registered" to each package application that uses those RPCs. The Broker on the server will check each RPC that it receives whether or not the RPC is registered to the application that the user is running on the client workstation. If the RPC has not been registered, the Broker will reject it and send an appropriate error message to the client. It is highly desirable to make RPCs as generic as possible so they can be utilized by as many packages as possible. Therefore, an individual RPC can be registered to and used by multiple packages.

To register an RPC to a package, the following procedures must be performed:

1. Select the entry in the OPTION file (#19) which corresponds to your client/server application.

2. Verify the client/server application TYPE field is a B type option.

NOTE: The OPTION TYPE "B" represents a Broker client/server type option.

3 . In the RPC multiple for this option type, the following information is entered:

Field Name	Entry	Description
RPC (#.01)	Required	This field is used to enter a pointer to the REMOTE PROCEDURE file (#8994). This field links the remote procedure call in the REMOTE PROCEDURE file (#8994) to the package option.
RPCKEY (#1)	Optional	field is used to restrict the use of a remote procedure call to a particular package option. The RPCKEY field is a free-text pointer to the SECURITY KEY file (#19.1).
RULES (#2)	Optional	This field is used to enter M code that is executed when an RPC request is made to verify whether the request should be honored.

4. You provide access to the option of your client/server application the same way as any other in VISTA. You can even place it on the System Command Options menu [XUCOMMAND], if you want everyone to have it, however, don't forget to rebuild the menu trees!

NOTE: RPC to package registration can be automated via the KIDS install of the package.

Exported Remote Procedure Calls (RPCs)

(NOTE: This list is not complete.)

RPC Name Description	Tag	Routine	Return Value
ORB DELETE ALERT	DEL	ORB3FUP1	SINGLE VALUE
This function deletes an alert.			
ORB FOLLOW-UP ARRAY	GUI	ORB3FUP1	ARRAY
This function returns an array of follow-up data. Content of the data varies by notification.			
ORB FOLLOW-UP STRING	GUI	ORB3FUP1	SINGLE VALUE
This function returns a string of follow-up data. Content of the data varies by notification.			
ORB FOLLOW-UP TYPE	TYPE	ORB3FUP1	SINGLE VALUE
Returns the follow-up action type for a notification as identified via the alert xqaid.			
ORB SORT METHOD	SORT	ORQORB	SINGLE VALUE
Returns the default sort method for notification display based on the precedence USER, DIVISION, SYSTEM, PACKAGE.			
ORK TRIGGER	EN	ORKCHK	ARRAY
This function returns a list of order check messages.			
ORQ NULL LIST	NLIST	ORQPTQ2	ARRAY
Returns a null list.			
ORQOR DETAIL	DETAIL	ORWOR	ARRAY
Returns detailed information regarding an order.			
ORQOR LIST	LIST	ORQOR1	ARRAY
Returns a list of patient orders.			
ORQPT ATTENDING/PRIMARY	ATTPRIM	ORQPTQ3	SINGLE VALUE
Returns a patient's attending physician and primary provider.			
ORQPT CLINIC PATIENTS	CLINPTS	ORQPTQ2	ARRAY
Returns patients with appointments at a clinic between start and stop dates			
ORQPT CLINICS	CLIN	ORQPTQ2	ARRAY
Function returns a list of clinics.			
ORQPT DEFAULT LIST SOURCE	DEFSRC	ORQPTQ11	SINGLE VALUE
Function returns the source of the current user's default patient list.			
ORQPT DEFAULT PATIENT LIST	DEFLIST	ORQPTQ11	ARRAY
Function returns the current user's default patient list.			
ORQPT PATIENT TEAM PROVIDERS	TPTPR	ORQPTQ1	ARRAY
Function returns a list of providers linked to a patient via teams.			

```
ORQPT PROVIDER PATIENTS          PROVPTS   ORQPTQ2   ARRAY
  Function returns an array of patients linked to a provider/user.
ORQPT PROVIDERS                  PROV      ORQPTQ2   ARRAY
  Function returns an array of providers.
ORQPT SPECIALTIES                SPEC      ORQPTQ2   ARRAY
  Function returns an array of treating specialties.
ORQPT SPECIALTY PATIENTS         SPECPTS   ORQPTQ2   ARRAY
  Function returns an array of patients linked to a treating specialty.
ORQPT TEAM PATIENTS              TEAMPTS   ORQPTQ1   ARRAY
  Function returns an array of patients on a team.
ORQPT TEAMS                      TEAMS     ORQPTQ1   ARRAY
  Function returns a list of teams.
ORQPT WARD PATIENTS              WARDPTS   ORQPTQ2   ARRAY
  Function returns a list of patients on a ward.
ORQPT WARDRMBED                  WRB       ORQPTQ3   SINGLE VALUE
  Returns the ward, room-bed for a patient.
ORQPT WARDS                      WARD      ORQPTQ2   ARRAY
  Function returns a list of wards.
```

RPC Name	Tag	Routine	Return Value
Description			

ORQQAL DETAIL   DETAIL   ORQQAL   ARRAY

  This function returns a string of information for a specific allergy/
  adverse reaction. Returned data is delimited by "^" and includes:
  allergen/reactant, originator, originator title, verified/not verified,
  observed/historical,<blank>,type, observation date, severity, drug class,
  symptoms/reactions (mulitple symptoms possible - delimited by ";"),
  comments.

ORQQAL LIST   LIST   ORQQAL   ARRAY

  Returns a list of allergies for a patient.

ORQQAL LIST REPORT   LRPT   ORQQAL   ARRAY

  Returns a list of allergens, severity and signs/symptoms in a report
  format which can be used in a "detailed" display. This RPC was set up
  to support the listing of allergies when selected from the Patient Postings
  list.

ORQQCN ADDCMT   CMT   ORQQCN2   SINGLE VALUE

  Allows addition of a comment to a consult request/consult without changing
  its status. Optionally, allows sending of an alert to the requesting
  provider and others.

ORQQCN DETAIL   DETAIL   ORQQCN   ARRAY

  Returns formatted detailed information regarding the consult request,
  including result report if available.

ORQQCN DISCONTINUE   DC   ORQQCN1   SINGLE VALUE

  Discontinue a consult or deny a consult request.

ORQQCN FORWARD   FR   ORQQCN1   SINGLE VALUE

  Forwards a consult to a subservice of the forwarding service, as defined
  in file 123.5

ORQQCN GET CONSULT   GETCSLT ORQQCN1   ARRAY

  Given a Consult ID from file 123, return the zero node to the client for
  loading into a consult record in RESULTS[0]. If the consult has any
  associated TIU records (completion, addenda) these will be returned in
  RESULTS[i..j].

ORQQCN LIST   LIST   ORQQCN   ARRAY

  Returns a list of consult requests for a patient within optional date range
  and optional service.

ORQQCN MED RESULTS   MEDRSLT ORQQCN2   ARRAY

  Returns a display of Medicine Package results, followed by any TIU

```
   results.
ORQQCN PRINT SF513                PRT513    ORQQCN2    SINGLE VALUE
ORQQCN RECEIVE                    RC        ORQQCN1    SINGLE VALUE
   Test version of RECEIVE CONSULT for use with GUI. (REV - 8/22/97)
ORQQCN SET ACT MENUS              SETACTM   ORQQCN1    SINGLE VALUE
   Based on the IEN of the consult passed in, returns a value of 1,2, or 3,
   allowing dynamic enabling/disabling of GUI menus based on user access
   level for that particular consult. See CPRS^GMRCACTM for return value
   explanations.
ORQQCN SHOW SF513                 SHOW513   ORQQCN2    ARRAY
ORQQCN STATUS                     STATUS    ORQQCN2    ARRAY
   Returns a list of consult statuses currently in use, as reflected in the
   "AC" XREF of ^GMR(123.1.
ORQQCN SVCTREE                    SVCTREE   ORQQCN2    ARRAY
   Returns a specially formatted list of consult services for use in
   populating a GUI TreeView control.
ORQQCN URGENCIES                  URG       ORQQCN1    ARRAY
   Returns a list of applicable urgencies from PROTOCOL file 101,
   given a ConsultIEN and type.
```

RPC Name Description	Tag	Routine	Return Value
ORQQLR DETAIL	DETAIL	ORQQLR	ARRAY
Returns the details of a lab order.			
ORQQLR SEARCH RANGE INPT	SRIN	ORQQLR	SINGLE VALUE
Returns the date search range in number of days (e.g. 2) to begin the search before today. For example, a value of 2 would indicate to limit the search between two days and today. Limited to inpatients.			
ORQQLR SEARCH RANGE OUTPT	SROUT	ORQQLR	SINGLE VALUE
Returns the date search range in number of days (e.g. 90) to begin the search before today. For example, a value of 90 would indicate to limit the search between ninety day. Limited to Outpatients.			
ORQQPL ADD SAVE	ADDSAVE	ORQQPL1	SINGLE VALUE
Add new problem record			
ORQQPL AUDIT HIST	HIST	ORQQPL2	ARRAY
RETURN PROBLEM AUDIT HISTORY			
ORQQPL CLIN FILTER LIST	GETCLIN	ORQQPL3	ARRAY
rETURNS ARRAY OF IEN^NAME FOR AN ARRAY OF IEN PASSED IN			
ORQQPL CLIN SRCH	CLINSRCH	ORQQPL1	ARRAY
Returns list of clinics for problem list. Should be replaced by CLIN^ORQPT			
ORQQPL DELETE	DELETE	ORQQPL2	SINGLE VALUE
DELETES A PROBLEM			
ORQQPL DETAIL	DETAIL	ORQQPL	ARRAY
Function returns a string of detailed information for a problem.			
ORQQPL EDIT LOAD	EDLOAD	ORQQPL1	ARRAY
Return array of default fields and original fields - GMPFLD() and GMPORIG()			
ORQQPL EDIT SAVE	EDSAVE	ORQQPL1	SINGLE VALUE
sAVES EDITED PROBLEM RECORD			
ORQQPL INIT PT	INITPT	ORQQPL1	ARRAY
returns death indicator, sc and exposures			
ORQQPL INIT USER	INITUSER	ORQQPL1	ARRAY
Returns user parameters for problem list			
ORQQPL LIST	LIST	ORQQPL	ARRAY
Function returns a list of problems for a patient.			
ORQQPL PROBLEM LEX SEARCH	LEXSRCH	ORQQPL1	ARRAY
Get a list from clinical lexicon for display in list or combo box			
ORQQPL PROBLEM LIST	PROBL	ORQQPL3	ARRAY
Problem list for CPRS GUI client			

```
ORQQPL PROV FILTER LIST          GETRPRV   ORQQPL3   ARRAY
  RETURNS A LIST OF PROVIDERS CORRESPONDING TO INPUT ARRAY OF IEN
ORQQPL PROVIDER LIST             PROVSRCH  ORQQPL1   ARRAY
  RETURNS ARRAY OF PROVIDERS MATCHING INPUT
ORQQPL REPLACE                   REPLACE   ORQQPL2   SINGLE VALUE
  REPLACES A PROBLEM THAT WAS PREVIOUSLY DELETED
ORQQPL SERV FILTER LIST          GETSRVC   ORQQPL3   ARRAY
  RETURNS ARRAY OF IEN^NAME FOR INPUT ARRAY OF IEN
ORQQPL SRVC SRCH                 SRVCSRCH  ORQQPL1   ARRAY
  gET LIST OF AVAILABLE SERVICES
ORQQPL UPDATE                    UPDATE    ORQQPL1   ARRAY
  Updates problem record
ORQQPL USER PROB CATS            CAT       ORQQPL3   ARRAY
  rETURNS ARRAY OF CATEGORIES FOR USER TO SELECT FROM
ORQQPL USER PROB LIST            PROB      ORQQPL3   ARRAY
  Returns array of user specific problems to select from
ORQQPL VERIFY                    VERIFY    ORQQPL2   SINGLE VALUE
  VERIFY A TRANSCRIBED PROBLEM
ORQQPP LIST                      LIST      ORQQPP    ARRAY
  Returns a list of active Patient Postings for a patient.
```

RPC Name Description	Tag	Routine	Return Value
ORQQPS DETAIL	DETAIL	ORQQPS	ARRAY
Returns the details of a medication order.			
ORQQPS LIST	LIST	ORQQPS	ARRAY
Function returns a list of a patient's medications.			
ORQQPX IMMUN LIST	IMMLIST	ORQQPX	ARRAY
Returns a list of patient immunizations.			
ORQQPX REMINDER DETAIL	REMDET	ORQQPX	ARRAY
Returns the details of a clinical reminder.			
ORQQPX REMINDERS LIST	REMIND	ORQQPX	ARRAY
Returns a list of clinical reminders.			
ORQQVI VITALS	FASTVIT	ORQQVI	ARRAY
Function returns a patient's vital measurements between start date and stop date.			
ORQQVI VITALS FOR DATE RANGE	VITALS	ORQQVI	ARRAY
Function returns a patient's vital measurements between start date and stop date.			
ORQQVI1 GRID	GRID	ORQQVI1	GLOBAL ARRAY
ORQQVI2 VITALS HELP	HELP	ORQQVI2	ARRAY
ORQQVI2 VITALS RATE CHECK	RATECHK	ORQQVI2	SINGLE VALUE
ORQQVI2 VITALS STORE			
ORQQVI2 VITALS VAL & STORE	VALSTORE	ORQQVI2	ARRAY
ORQQVI2 VITALS VALIDATE	VALIDATE	ORQQVI2	ARRAY
ORQQVI2 VITALS VALIDATE TYPE	VMTYPES	ORQQVI2	SINGLE VALUE
ORQQVS DETAIL NOTES	DETNOTE	ORQQVS	ARRAY
Returns the progress notes based on patient and visit identifier.			
ORQQVS DETAIL SUMMARY	DETSUM	ORQQVS	ARRAY
Returns discharge summary for a visit.			
ORQQVS VISITS/APPTS	VSITAPPT	ORQQVS	ARRAY
Returns a list of patient appointments and visits for a date/time range.			
ORQQXMB MAIL GROUPS	MAILG	ORQQXQA	ARRAY
Returns mail groups in a system.			
ORQQXQA PATIENT	PATIENT	ORQQXQA	ARRAY
Function returns a list of notifications for a patient for the current user.			
ORQQXQA USER	USER	ORQQXQA	ARRAY
Function returns notifications for current user.			

```
ORWCH LOADALL                    LOADALL    ORWCH      ARRAY
ORWCH SAVEALL                    SAVEALL    ORWCH      SINGLE VALUE
ORWCH SAVESIZ                    SAVESIZ    ORWCH      SINGLE VALUE
ORWCS LIST OF CONSULT REPORTS    LIST       ORWCS      GLOBAL ARRAY
  This remote procedure call returns a list on consult reports for a
  specific patient.
ORWCS PRINT REPORT               PRINT      ORWCSP     SINGLE VALUE
  This rpc is used to print a consult report on the Consult tab
  in CPRS.
ORWCS REPORT TEXT                RPT        ORWCS      GLOBAL ARRAY
  This remote procedure call returns an array containing
  a formattied consult report. This array matches exactly
  the report format on the roll 'n scroll version of CPRS.
ORWD DEF                         DEF        ORWD       ARRAY
  Returns the formatting definition for an ordering dialog from the ORDER
  DIALOG file (101.41).
ORWD DT                          DT         ORWD       SINGLE VALUE
  Returns a date in internal Fileman format.
ORWD FORMID                      FORMID     ORWD       SINGLE VALUE
  Returns the Form ID (mapping to a windows form) for an ordering dialog.
```

RPC Name Description	Tag	Routine	Return Value
ORWD GET4EDIT	GET4EDIT	ORWD	ARRAY
Returns the responses for an already existing order.			
ORWD KEY	KEY	ORWD	SINGLE VALUE
ORWD OI	OI	ORWD	ARRAY
Returns a group of orderable items to be used in the OnNeedData event for a long list box.			
ORWD PROVKEY	PROVKEY	ORWD	SINGLE VALUE
Returns 1 if the users possesses the PROVIDER key.			
ORWD SAVE	SAVE	ORWD	ARRAY
Saves an order. The order is passed in ORDIALOG format.			
ORWD SAVEACT	SAVEACT	ORWD	ARRAY
Saves the action on a order in an unsigned/unreleased state.			
ORWD SIGN	SIGN	ORWD	ARRAY
Changes signature status on a list of orders and optionally releases the orders to their respective services.			
ORWD VALIDACT	VALIDACT	ORWD	SINGLE VALUE
Returns 1 if action is valid for an order, otherwise 0^error.			
ORWDCN32 DEF	DEF	ORWDCN32	ARRAY
Load dialog data (lists & defaults) for a consult order. (32-BIT)			
ORWDCN32 ORDRMSG	ORDRMSG	ORWDCN32	SINGLE VALUE
ORWDCSLT DEF	DEF	ORWDCSLT	ARRAY
Load dialog data (lists & defaults) for a consult order. (16-BIT)			
ORWDCSLT LOOK200	LOOK200	ORWDCSLT	SINGLE VALUE
Validates Attn: field of a consult order.			
ORWDGX LOAD	LOAD	ORWDGX	ARRAY
Loads a list of activities for an activity order.			
ORWDGX VMDEF	VMDEF	ORWDGX	ARRAY
Loads dialog data (lists & defaults) for a vitals order.			
ORWDLR ABBSPEC	ABBSPEC	ORWDLR	ARRAY
Returns lab specimens that have an abbreviation (used as default list).			
ORWDLR ALLSAMP	ALLSAMP	ORWDLR	ARRAY
Returns a list of collection samples for a lab order.			
ORWDLR DEF	DEF	ORWDLR	ARRAY
Loads dialog data (lists & defaults) for a lab order.			
ORWDLR LOAD	LOAD	ORWDLR	ARRAY
Loads sample, specimen, and urgency information for a given lab test.			

```
ORWDLR OIPARAM                        LOAD       ORWDLR    ARRAY
  No longer used.
ORWDLR STOP                           STOP       ORWDLR    SINGLE VALUE
  Calculates a stop date (for lab orders with schedules).
ORWDLR32 ABBSPEC                       ABBSPEC    ORWDLR32  ARRAY
ORWDLR32 ALLSAMP                       ALLSAMP    ORWDLR32  ARRAY
ORWDLR32 ALLSPEC                       ALLSPEC    ORWDLR32  ARRAY
ORWDLR32 DEF                           DEF        ORWDLR32  ARRAY
ORWDLR32 LOAD                          LOAD       ORWDLR32  ARRAY
ORWDLR32 MAXDAYS                       MAXDAYS    ORWDLR32  SINGLE VALUE
ORWDLR32 STOP                          STOP       ORWDLR32  SINGLE VALUE
ORWDPS DEF                             DEF        ORWDPS    ARRAY
  Loads dialog data (lists & defaults) for a pharmacy order (inpatient and
  outpatient).
ORWDPS INPT                            INPT       ORWDPS    SINGLE VALUE
ORWDPS LOAD                            LOAD       ORWDPS    ARRAY
  Loads dialog data (lists & defaults) for a pharmacy order once an
  orderable item (Drug & Form) is selected.
ORWDPS OUTPT                           OUTPT      ORWDPS    SINGLE VALUE
ORWDPS32 ALLROUTE                      ALLROUTE   ORWDPS32  ARRAY
```

RPC Name	Tag	Routine	Return Value
Description			
ORWDPS32 AUTH	AUTH	ORWDPS32	SINGLE VALUE
ORWDPS32 DLGSLCT	DLGSLCT	ORWDPS32	ARRAY
ORWDPS32 DRUGMSG	DRUGMSG	ORWDPS32	SINGLE VALUE
ORWDPS32 FORMALT	FORMALT	ORWDPS32	ARRAY
ORWDPS32 MEDISIV	MEDISIV	ORWDPS32	SINGLE VALUE
ORWDPS32 OISLCT	OISLCT	ORWDPS32	ARRAY
ORWDPS32 SCSTS	SCSTS	ORWDPS32	SINGLE VALUE
ORWDRA DEF	DEF	ORWDRA	ARRAY
Loads dialog data (lists & defaults) for a radiology order.			
ORWDRA32 APPROVAL	APPROVAL	ORWDRA32	ARRAY
ORWDRA32 DEF	DEF	ORWDRA32	ARRAY
Loads dialog data (lists & defaults) for a radiology order.			
ORWDRA32 IMTYPSEL	IMTYPSEL	ORWDRA32	ARRAY
ORWDRA32 ISOLATN	ISOLATN	ORWDRA32	SINGLE VALUE
ORWDRA32 PROCMSG	PROCMSG	ORWDRA32	ARRAY
ORWDRA32 RADSRC	RADSRC	ORWDRA32	ARRAY
ORWDRA32 RAORDITM	RAORDITM	ORWDRA32	ARRAY
ORWDX DLGDEF	DLGDEF	ORWDX	ARRAY
ORWDX DLGQUIK	DLGQUIK	ORWDX	ARRAY
ORWDX FORMID	FORMID	ORWDX	SINGLE VALUE
ORWDX LOADRSP	LOADRSP	ORWDX	ARRAY
ORWDX ORDITM	ORDITM	ORWDX	ARRAY
ORWDX SAVE	SAVE	ORWDX	ARRAY
ORWDX SEND	SEND	ORWDX	ARRAY
ORWDX WRLST	WRLST	ORWDX	ARRAY
ORWDXA ALERT	ALERT	ORWDXA	SINGLE VALUE
ORWDXA COMPLETE	COMPLETE	ORWDXA	ARRAY
ORWDXA DC	DC	ORWDXA	ARRAY
ORWDXA DCREASON	DCREASON	ORWDXA	ARRAY
ORWDXA FLAG	FLAG	ORWDXA	ARRAY
ORWDXA FLAGTXT	FLAGTXT	ORWDXA	ARRAY
ORWDXA HOLD	HOLD	ORWDXA	ARRAY
ORWDXA UNFLAG	UNFLAG	ORWDXA	ARRAY
ORWDXA UNHOLD	UNHOLD	ORWDXA	ARRAY
ORWDXA VALID	VALID	ORWDXA	SINGLE VALUE
ORWDXA VERIFY	VERIFY	ORWDXA	ARRAY

```
ORWDXA WCGET                    WCGET      ORWDXA     ARRAY

ORWDXA WCPUT                    WCPUT      ORWDXA     SINGLE VALUE

ORWDXQ DLGNAME                  DLGNAME    ORWDXQ     SINGLE VALUE

ORWDXQ DLGSAVE                  DLGSAVE    ORWDXQ     SINGLE VALUE

ORWDXQ GETQLST                  GETQLST    ORWDXQ     ARRAY

ORWDXQ GETQNAM                  GETQNAM    ORWDXQ     SINGLE VALUE

ORWDXQ PUTQLST                  PUTQLST    ORWDXQ     SINGLE VALUE

ORWDXQ PUTQNAM                  PUTQNAM    ORWDXQ     SINGLE VALUE

ORWDXR ISREL                    ISREL      ORWDXR     SINGLE VALUE

ORWDXR RENEW                    RENEW      ORWDXR     ARRAY

ORWDXR RNWFLDS                  RNWFLDS    ORWDXR     ARRAY

ORWLR CUMULATIVE REPORT         CUM        ORWLR      GLOBAL ARRAY

  This call returns an up to date laboratory cumulative report for a given

  patient.

ORWLR CUMULATIVE SECTION        RPT        ORWLR      GLOBAL ARRAY

  This rpc retrieves the part of the lab cumulative report

  selected by the user on the Labs tab.
```

RPC Name	Tag	Routine	Return Value
Description			
ORWLR REPORT LISTS	LIST	ORWLR	GLOBAL ARRAY
This remote procedure call returns a list of lab cumulative sections, and date ranges that can be displayed at the workstation. There are no input parameters fo this rpc.			
ORWLRR ALLTESTS	ALLTESTS	ORWLRR	ARRAY
ORWLRR ATESTS	ATESTS	ORWLRR	ARRAY
ORWLRR ATG	ATG	ORWLRR	ARRAY
ORWLRR ATOMICS	ATOMICS	ORWLRR	ARRAY
ORWLRR CHART	CHART	ORWLRR	GLOBAL ARRAY
ORWLRR CHEMTEST	CHEMTEST	ORWLRR	ARRAY
ORWLRR GRID	GRID	ORWLRR	GLOBAL ARRAY
ORWLRR INTERIM	INTERIM	ORWLRR	GLOBAL ARRAY
ORWLRR INTERIMG	INTERIMG	ORWLRR	GLOBAL ARRAY
ORWLRR INTERIMS	INTERIMS	ORWLRR	GLOBAL ARRAY
ORWLRR MICRO	MICRO	ORWLRR	GLOBAL ARRAY
ORWLRR NEWOLD	NEWOLD	ORWLRR	SINGLE VALUE
ORWLRR PARAM	PARAM	ORWLRR	SINGLE VALUE
ORWLRR SPEC	SPEC	ORWLRR	ARRAY
ORWLRR TG	TG	ORWLRR	ARRAY
ORWLRR USERS	USERS	ORWLRR	ARRAY
ORWLRR UTGA	UTGA	ORWLRR	ARRAY
ORWLRR UTGD	UTGD	ORWLRR	ARRAY
ORWLRR UTGR	UTGR	ORWLRR	ARRAY
ORWMC PATIENT PROCEDURES	PROD	ORWMC	GLOBAL ARRAY
This remote procedure call returns a list of patient procedures for a specific patient.			
ORWOR RESULT	RESULT	ORWOR	GLOBAL ARRAY
ORWORDG ALLTREE	ALLTREE	ORWORDG	ARRAY
ORWORDG GRPSEQB	GRPSEQB	ORWORDG	ARRAY
ORWORDG IEN	IEN	ORWORDG	SINGLE VALUE
ORWORDG MAPSEQ	MAPSEQ	ORWORDG	ARRAY
ORWORDG REVSTS	REVSTS	ORWORDG	ARRAY
ORWORR GET	GET	ORWORR	ARRAY
Returns a list of orders & and associated fields and text.			
ORWPCE ACTIVE PROV	ACTIVPRV	ORWPCE2	SINGLE VALUE
This calls the PCE API $$ACTIVPRV^PXAPI(provider ien, encounter d/t) to			

```
   see if the provider can be stored by PCE.  Returns a 1 if provider is
   good and 0 if the provider is not active or does not have an active
   person class.
ORWPCE CPTREQD                CPTREQD   ORWPCE    SINGLE VALUE
ORWPCE DELETE                 DELETE    ORWPCE    SINGLE VALUE
ORWPCE DIAG                   DIAG      ORWPCE    ARRAY
ORWPCE GET EDUCATION TOPICS   EDTTYPE   ORWPCE2   ARRAY
ORWPCE GET EXAM TYPE          EXAMTYPE  ORWPCE2   ARRAY
ORWPCE GET HEALTH FACTORS TY  HFTYPE    ORWPCE2   ARRAY
ORWPCE GET IMMUNIZATION TYPE  IMMTYPE   ORWPCE2   ARRAY
ORWPCE GET SET OF CODES       GETSET    ORWPCE2   ARRAY
ORWPCE GET SKIN TEST TYPE     SKTYPE    ORWPCE2   ARRAY
ORWPCE GET TREATMENT TYPE     TRTTYPE   ORWPCE2   ARRAY
ORWPCE HF                     HF        ORWPCE    ARRAY
ORWPCE IMM                    IMM       ORWPCE    ARRAY
ORWPCE LEX                    LEX       ORWPCE    ARRAY
ORWPCE LEXCODE                LEXCODE   ORWPCE    SINGLE VALUE
ORWPCE NOTEVSTR               NOTEVSTR  ORWPCE    SINGLE VALUE
ORWPCE PCE4NOTE               PCE4NOTE  ORWPCE    ARRAY
ORWPCE PED                    PED       ORWPCE    ARRAY
```

RPC Name Description	Tag	Routine	Return Value
ORWPCE PROC	PROC	ORWPCE	ARRAY
ORWPCE SAVE	SAVE	ORWPCE	SINGLE VALUE
ORWPCE SCDIS	SCDIS	ORWPCE	ARRAY
ORWPCE SCSEL	SCSEL	ORWPCE	SINGLE VALUE
ORWPCE SK	SK	ORWPCE	ARRAY
ORWPCE TRT	TRT	ORWPCE	ARRAY
ORWPCE VISIT	VISIT	ORWPCE	ARRAY
ORWPCE XAM	XAM	ORWPCE	ARRAY
ORWPS ACTIVE	ACTIVE	ORWPS	ARRAY
ORWPS COVER	COVER	ORWPS	ARRAY
ORWPS DETAIL	DETAIL	ORWPS	GLOBAL ARRAY
ORWPT ADMITLST	ADMITLST	ORWPT	ARRAY
Returns a list of admissions for a patient (for visit selection).			
ORWPT APPTLST	APPTLST	ORWPT	ARRAY
Returns a list of appointments for a patient (for visit selection).			
ORWPT CLINRNG	CLINRNG	ORWPT	ARRAY
ORWPT DFLTSRC	DFLTSRC	ORWPT	SINGLE VALUE
ORWPT DISCHARGE	DISCHRG2	ORWPT	SINGLE VALUE
Given a patient and an admission date, return the discharge date/time.			
ORWPT ENCTITL	ENCTITL	ORWPT	SINGLE VALUE
ORWPT ID INFO	IDINFO	ORWPT	SINGLE VALUE
Returns identifying information for a patient.			
ORWPT LAST5	LAST5	ORWPT	ARRAY
ORWPT LIST ALL	LISTALL	ORWPT	ARRAY
Returns a set of patient names for use with a long list box.			
ORWPT PTINQ	PTINQ	ORWPT	GLOBAL ARRAY
ORWPT SELCHK	SELCHK	ORWPT	SINGLE VALUE
ORWPT SELECT	SELECT	ORWPT	SINGLE VALUE
ORWPT SHARE	SHARE	ORWPT	SINGLE VALUE
ORWPT TOP	TOP	ORWPT	ARRAY
ORWPT16 ADMITLST	ADMITLST	ORWPT16	ARRAY
ORWPT16 APPTLST	APPTLST	ORWPT16	ARRAY
ORWPT16 DEMOG	DEMOG	ORWPT16	SINGLE VALUE
ORWPT16 GETVSIT	GETVSIT	ORWPT16	SINGLE VALUE
ORWPT16 ID INFO	IDINFO	ORWPT16	SINGLE VALUE
ORWPT16 LIST ALL	LISTALL	ORWPT16	ARRAY

```
ORWPT16 LOOKUP                    LOOKUP    ORWPT16   ARRAY

ORWPT16 PSCNVT                    PSCNVT    ORWPT16   SINGLE VALUE

ORWRA IMAGING EXAMS              EXAMS     ORWRA     GLOBAL ARRAY
  This remote procedure call returns a list on imaging exams for a
  specific patient.
ORWRA PRINT REPORT               PRINT     ORWRAP    SINGLE VALUE
  This rpc is used to print an imaging report on the Imaging tab
  in CPRS.
ORWRA REPORT TEXT                RPT       ORWRA     GLOBAL ARRAY
  This remote procedure call returns an array containing
  a formattied imaging report. This array matches exactly
  the report format on the roll 'n scroll version of CPRS.
ORWRP PRINT REPORT               PRINT     ORWRPP    SINGLE VALUE
  This rpc is used to print a report on the Report tab
  in CPRS.
ORWRP REPORT LISTS               LIST      ORWRP     ARRAY
  This remote procedure call returns a list of reports,
  Health Summary types and date ranges that can be displayed
  at the workstation.
  There are no input parameters fo this rpc.
```

RPC Name Description	Tag	Routine	Return Value
ORWRP REPORT TEXT	RPT	ORWRP	GLOBAL ARRAY
This rpc retrieves the report text for a report selected on the Report tab. the report format on the roll 'n scroll version of CPRS.			
ORWRP1 LISTNUTR	LISTNUTR	ORWRP1	GLOBAL ARRAY
ORWRP16 REPORT LISTS	LIST	ORWRP16	GLOBAL ARRAY
This remote procedure call returns a list of reports, Health Summary types and date ranges that can be displayed at the workstation. There are no input parameters fo this rpc.			
ORWRP16 REPORT TEXT	RPT	ORWRP16	GLOBAL ARRAY
This rpc retrieves the report text for a report selected on the Report tab. the report format on the roll 'n scroll version of CPRS.			
ORWU CLINLOC	CLINLOC	ORWU	ARRAY
ORWU DEVICE	DEVICE	ORWU	ARRAY
Returns a list of print devices.			
ORWU DT	DT	ORWU	SINGLE VALUE
ORWU EXTNAME	EXTNAME	ORWU	SINGLE VALUE
ORWU GENERIC	GENERIC	ORWU	ARRAY
ORWU HASKEY	HASKEY	ORWU	SINGLE VALUE
ORWU HOSPLOC	HOSPLOC	ORWU	ARRAY
Returns a set of hospital locations for use in a long list box.			
ORWU NEWPERS	NEWPERS	ORWU	ARRAY
Returns a set of New Person file entries for use in a long list box.			
ORWU PATCH	PATCH	ORWU	SINGLE VALUE
ORWU TOOLMENU	TOOLMENU	ORWU	ARRAY
ORWU USERINFO	USERINFO	ORWU	SINGLE VALUE
Returns preferences for the current user.			
ORWU VALDT	VALDT	ORWU	SINGLE VALUE
ORWU VALIDSIG	VALIDSIG	ORWU	SINGLE VALUE
Validates a broker encrypted electronic signature.			
ORWU16 DEVICE	DEVICE	ORWU16	ARRAY
ORWU16 HOSPLOC	HOSPLOC	ORWU16	ARRAY
ORWU16 NEWPERS	NEWPERS	ORWU16	ARRAY
ORWU16 USERINFO	USERINFO	ORWU16	SINGLE VALUE

```
ORWU16 VALDT                        VALDT    ORWU16    SINGLE VALUE
ORWU16 VALIDSIG                     VALIDSIG ORWU16    SINGLE VALUE
ORWUH POPUP                         POPUP    ORWUH     ARRAY
  Retrieves the "What's This" text for a given control.
ORWUX SYMTAB                        SYMTAB   ORWUX     GLOBAL ARRAY
```

Package-Wide Variables

CPRS has no package-wide variables.

How to Get Online Documentation

The CPRS documentation set (Installation Guide, Implementation Guide, Technical Manual, and Clinician Guide) is available on the Software Services World Wide Web (WWW) page. It's also available in pdf format on the Hines Anonymous account.

Retrieving Online Help Using Question Marks

Entering question marks within the menu system provides help about options and menus.

?　　　If you enter one question mark at a prompt, the program displays a brief explanation of what kind of information you should enter.

??　　　If you enter two question marks, the program shows a list of possible responses (if appropriate) or a more detailed descriptions, and also the hidden actions available, if you are in a List Manager screen.

???　　　Three question marks cause more complete descriptions to be displayed..

KIDS Install Print Options

Print a list of package components

Use the KIDS Build File Print option if you would like a complete listing of package components (e.g., routines and options) exported with this software.

```
>D ^XUP
Setting up programmer environment
Terminal Type set to: C-VT100


Select OPTION NAME: XPD MAIN      Kernel Installation & Distribution System menu


          Edits and Distribution ...
          Utilities ...
          Installation ...


Select Kernel Installation & Distribution System Option: Utilities


          Build File Print
          Install File Print
          Convert Loaded Package for Redistribution
          Display Patches for a Package
          Purge Build or Install Files
          Rollup Patches into a Build
          Update Routine File
          Verify a Build
          Verify Package Integrity


Select Utilities Option: Build File Print
Select BUILD NAME: COMPUTERIZED PATIENT RECORD SYSTEM 1.0         COMPUTERIZED
PATIENT RECORD SYSTEM DEVICE: HOME//    VAX
```

Print Results of the Installation Process

Use the KIDS Install File Print option if you'd like to print out the results of the installation process.

```
DEVICE: HOME//   ANYWHERE
```

```
PACKAGE: COMPUTERIZED PATIENT RECORD SYSTEM 1.0     Jan 21, 1997 3:34 pm      PAGE 1
                                           COMPLETED           ELAPSED
-------------------------------------------------------------------------
STATUS: Install Completed              DATE LOADED: JAN 21, 1997@12:49:03
```

Other Kernel Print Options

Besides using the Kernel Installation & Distribution (KIDS) options to get lists of routines, files, etc., you can also use other Kernel options to print online technical information.

Routines

XUPRROU (List Routines) prints a list of any or all of the TIU routines. This option is found on the XUPR-ROUTINE-TOOLS menu on the XUPROG (Programmer Options) menu, which is a sub-menu of the EVE (Systems Manager Menu) option.

```
Select Systems Manager Menu Option: programmer Options


Select Programmer Options Option: routine Tools


Select Routine Tools Option: list Routines

Routine Print

Want to start each routine on a new page: No// [ENTER]



routine(s) ?   > TIU*
```

The first line of each routine contains a brief description of the general function of the routine. Use the Kernel option XU FIRST LINE PRINT (First Line Routine Print) to print a list of just the first line of each TIU subset routine.

```
Select Systems Manager Menu Option: programmer Options


Select Programmer Options Option: routine Tools


Select Routine Tools Option: First Line Routine Print

PRINTS FIRST LINES


routine(s) ?   >TIU*
```

Globals

```
Select Systems Manager Menu Option: programmer Options
Select Programmer Options Option: LIST Global
```

```
Global ^^PX*
```

XINDEX

XINDEX is a routine that produces a report called the VA Cross-Referencer. This report is a technical and cross-reference listing of one routine or a group of routines. XINDEX provides a summary of errors and warnings for routines that do not comply with VA programming standards and conventions, a list of local and global variables and what routines they are referenced in, and a list of internal and external routine calls.

XINDEX is invoked from programmer mode: D ^XINDEX.

When selecting routines, select OR* and OC*.

Data Dictionaries/ Files

The number-spaces for CPRS files are 100-101 and 860-864. Use the VA FileMan DATA DICTIONARY UTILITIES, option #8 (DILIST, List File Attributes), to print a list of these files. Depending on the FileMan template used to print the list, this option will print out all or part of the data dictionary for the TIU files.

List File Attributes

The FileMan List File Attributes option [DILIST] lets you generate documentation about files and file structure. If you choose the "Standard" format, you can see the following Data Dictionary information for a specified file(s):

- File name and description.
- Identifiers.
- Cross-references.
- Files pointed to by the file specified.
- Files that point to the file specified.
- Input templates.
- Print templates.
- Sort templates.

Example:

```
>D P^DI
VA FileMan 21.0
Select OPTION: DATA DICTIONARY UTILITIES
```

```
Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES
 START WITH WHAT FILE: 8925
                                        (1 entry)
      GO TO WHAT FILE: 8925// 8926*
Select LISTING FORMAT: STANDARD// [Enter]
DEVICE: PRINTER
```

Data Dictionaries/ Files, cont'd

In addition, the following applicable data is supplied for each field in the file: field name, number, title, global location, description, help prompt, cross-reference(s), input transform, date last edited, and notes.

The "Global Map" format of this option generates an output that lists all cross-references for the file selected, global location of each field in the file, input templates, print templates, and sort templates.

Inquire To Option File

The Kernel Inquire option [XUINQUIRE] provides the following information about a specified option(s):

- Option name.
- Menu text.
- Option description.
- Type of option.
- Lock (if any).

  In addition, all items on the menu are listed for each menu option.

Glossary

ASU   Authorization/Subscription Utility, a utility that allows sites to associate users with user classes, allowing them to specify the level of authorization needed to sign or order specific document types and orderables.

ACTION   A functional process that a clinician or clerk uses in the a List Manager computer program. "Edit," "Create," and "Find" are examples of actions.

ACTIVATE   To make an inactive window active by clicking anywhere in it.

AICS   Automated Information Collection System, formerly Integrated Billing; software developed at Albany IRMFO, supported by MCCR, producing scannable Encounter Forms.

ALERTS   Brief online notices that are issued to users as they complete a cycle through the menu system. Alerts are designed to provide interactive notification of pending computing activities, such as the need to reorder supplies or review a patient's clinical test results. Along with the alert message is an indication that the View Alerts common option should be chosen to take further action.

APPLICATION   A person at a hospital or clinic assigned to coordinate the

COORDINATOR (ADPAC) ADP activities in a specific department. This person is usually a specialist in his department (e.g., a medical technologist or a pharmacist) first and the applications coordinator second.

APPLICATION PROGRAM- Programmer calls provided for use by application

MING INTERFACE (API) programmers. APIs allow programmers to carry out standard computing activities without needing to duplicate Kernel utilities in their own packages. APIs also further DBA goals of system integration by channeling activities, such as adding new users, through a limited number of callable entry points.

 BOILERPLATE TEXT   A pre-defined Progress Notes or Discharge Summary template containing standard text, with blanks to fill in for specific data about a patient.

BOOT   To load instructions into main memory to get a computer operational.

CIO FIELD OFFICE	Chief Information Office Field Office (formerly known as IRMFO: Information Resource Management Field Office (formerly ISC).
	V*IST*A has nine CIOFOs, each responsible for developing assigned application packages and for supporting the medical centers' VISNs within the IRMFO region.
CLIENT	A single term used interchangeably to refer to the user, the workstation, and the portion of the program that runs on the workstation. In an object-oriented environment, a client is a member of a group that uses the services of an unrelated group. If the client is on a local area network (LAN), it can share resources with another computer (server).
CLIENT-SERVER ARCHITECTURE	A Network consisting of a workstation (client) and a central computer holding the database, linked by TCP/IP.
CLINICIAN	A doctor or other provider in the medical center who is authorized to provide patient care.
COMPONENT	In Progress Notes, Components are "sections" or "pieces" of documents, such as Subjective, Objective, Assessment, and Plan in a SOAP Progress Components may have (sub)Components as items. They may have Boilerplate Text. Components may be designated SHARED.
CONSULTS	A component or package of the CPRS (it can function as part of CPRS, independently as a standalone package, or as part of TIU). Consults are referrals of patients by the primary care physician to another hospital service/specialty, to obtain a medical opinion based on patient evaluation and completion of any procedures, modalities, or treatments the consulting specialist deems necessary to render a medical opinion. For instance, if a primary care physician orders a patient evaluation from Cardiology Service, and the cardiology specialist orders an Electrocardiogram (EKG) to complete the evaluation and provide an opinion concerning the patient's condition, this type of order is considered a "Consult."
CONTROL	An object in a window on the screen which the user can cause action with visible results or change settings to modify a future action.
COTS	Commercial Off the Shelf ; products not developed by V*IST*A.

COVER SHEET   A screen of the CPRS patient chart which displays an overview of the patient's record, with tabs at the bottom representing components of a patient's chart.

CWAD   Crises, Warnings, Allergies/Adverse Reactions, and Advance Directives.

DISCHARGE SUMMARY A discharge summary is a formal synopsis of a patient's medical care during a single hospitalization. It includes the pertinent diagnostic and therapeutic tests and procedures as well as the conclusions generated by those tests. A discharge summary is prepared for all discharges and transfers from a VA medical center or domiciliary or from nursing home care. The automated Discharge Summary module provides an efficient and immediate mechanism for clinicians to capture transcribed patient discharge summaries online, where they're available for review, signing, adding addendum, etc..

DLL   Dynamic Link Library. A DLL allows executable routines to be stored separately as files with a DLL extension. These routines are only loaded when a program calls for them. DLLs provide several advantages:

1. DLLs help save on computer memory, since memory is only consumed when a DLL is loaded. 2. DLLs ease maintenance tasks. Because the DLL is a separate file, any modifications made to the DLL will not affect the operation of the calling program or any other DLL. 3. DLLs help avoid redundant routines. They provide generic functions that can be utilized by a variety of programs.

EVENTS   An object-oriented term that represents user actions that a GUI application interface recognizes, such as a mouse click or pressing the down arrow key.

GUI   Graphical User Interface. A type of display format that enables users to choose commands, initiate programs, and other options by selecting pictorial representations (icons) via a mouse or a keyboard.

HEALTH SUMMARY   A **V***IST***A** product which can be viewed through CPRS. It includes snapshots of part or all of a patient's tests and results (based on how the site has it set up).

HL-7   Hospital Level 7, communications standards/protocols to link different computer systems together.

ICON	A picture or symbol that graphically represents an object or a concept.
IDCU	The Integrated Data Communications Utility which is a wide area network used by VA for transmitting data between VA sites.
IMAGING	A component of the patient chart; includes Radiology, X-rays, Nuclear Medicine, etc.
IRMS	Information Resource Management Service. A service at VA medical centers responsible for computer management and system security.
KERNEL DATA BROKER	See RPC Broker
MODAL	A state or "mode" in which the user can only act or respond to a single dialogue box or window. You must select a response before you can exit or do anything else in the program.
MODELESS	The user is free to select and act in any window.
NAMESPACING	A convention for naming **V**IST**A** package elements. The Database Administrator (DBA) assigns unique character strings for package developers to use in naming routines, options, and other package elements so that packages may coexist. The DBA also assigns a separate range of file numbers to each package.
NOTIFICATIONS	Alerts regarding specific patients that appear on the CPRS patient chart.
OCIO	Office of the Chief Information Officer, located in Washington, D.C. All CIO Field Offices ultimately report to this entity, which is subordinate to the Office of the Undersecretary for Health.
OBJECT-BASED	Involves the use of components.

PROGRAMMING

OBJECT-ORIENTED	Involves the creation of components. These
PROGRAMMING	components are self contained collections of data structures and routines that interact with other components or objects.

OE/RR   Order Entry/Results Reporting; a package developed to interface with all **V***IST***A** packages, now part of CPRS.

PATIENT POSTINGS   A component of the patient chart; includes messages about patient; an expanded version of CWAD (see above).

PCE   Patient Care Encounter; a **V***IST***A** program that's part of the Ambulatory Data Capture Project (ADCP), and also provides Clinical Reminders, which appear on Health Summaries.

PCMM   Patient Care Management Module, a **V***IST***A** product that manages patient/provider lists.

PROGRESS NOTES   The Progress Notes module of TIU is used by health care givers to enter and sign online patient progress notes and by transcriptionists to enter notes to be signed by caregivers at a later date. Caregivers may review progress notes online or print progress notes in chart format for filing in the patient's record.

REMOTE PROCEDURE CALL A remote procedure call (RPC) is essentially some M code that may take optional parameters to do some work and then return either a single value or an array back to the client application.

RESOURCE   In **V***IST***A**, a method that enables sequential processing of tasks. The processing is accomplished with a RES device type designed by the application programmer and implemented by IRM. The process is controlled via the RESOURCE file (#3.54).

RPC BROKER   The RPC Broker acts as a bridge connecting the client application front-end on the workstation (e.g., Delphi GUI applications) to the M-based data and business rules on the server. It serves as the communications medium for messaging between VISTAclient/server applications.

RUBBER BAND JUMP   In roll and scroll mode of **V***IST***A**, a menu jump used to go out to an option and then return, in a bouncing motion. The syntax of the jump is two up-arrows followed by an option's menu text or synonym (e.g., ^^Print Option File). If the two up-arrows are not followed by an option specification, the user is returned to the primary menu (see Go-home Jump).

SEMI-MODAL   A window or dialogue box that will yield focus to the parent window for some limited processing. Typically, semi-modal dialogue boxes remain in the foreground even after yielding focus.

SERVER
The computer where the data and the Business Rules reside. It makes resources available to client workstations on the network. In **V***IST***A** , it is an entry in the OPTION file (#19). An automated mail protocol that is activated by sending a message to a server at another location with the "S.server" syntax. A server's activity is specified in the OPTION file (#19) and can be the running of a routine or the placement of data into a file.

TIU
Text Integration Utilities, a **V***IST***A** application interfacing with CPRS that manages document-oriented modules such as Progress Notes, Discharge Summary, and Consults.

USABILITY
The ease and comfort a program provides to people. Programs that are user-centered rather than machine or programmer-centered.

USER CLASS
The basic component of ASU (Authorization/ Subscription Utility). The User Class file contains the different categories of users within a hospital. ASU allows sites to designate who is authorized to do what.

USER-CENTERED
A program designed to match the way people do things

USER INTERFACE
The way the package is presented to the user, such as Graphical User Interfaces that display option prompts, help messages, and menu choices, the List Manager User Interface (described at the beginning of this manual), and the roll and scroll interface, the traditional **V***IST***A** terminal-based user interface.

VHA
Veterans Health Administration

VISN
Veterans Integrated Service Networks, geographic groupings of VA Medical Centers which together share resources and collaborate to maximize use of resources and efficiently meet the needs of veterans in their service areas.

V*IST***A**
(VHA Information Systems & Technology Architecture, formerly DHCP (Decentralized Hospital Computer Program), the VA's comprehensive, integrated, medical center computer system. It consists of hardware, software packages, and comprehensive support for system-wide and station-specific, clinical and administrative automation needs.

WINDOW
An object on the screen that presents information such as a document or message.

Computerized Patient Record System (CPRS) V. 1.0

Technical Manual

Troubleshooting & Helpful Hints

Tips

CPRS Use of HL7

- Standard HL7 protocol is used, but not VA HL7 package
- Package protocol links facilitate HL7 communications
- HL7 messaging updates ancillary packages from CPRS and vice versa
- If protocols are unlinked, status updates between packages will fail
- HL7 also used to update package orderables

Protocol Linkage

- Each interfacing package has protocols that communicate with OE/RR
- Order Communications via Protocols/HL7:
- user places order
- order sent by CPRS to receiving package
- receiving package processes order
- receiving package sends message to CPRS

Multiple Sign-on

- Clinical staff may want to have both GUI CPRS and *VIST*A terminal sessions open
- Single sign-on available with Broker 1.1
- PC must have broker client agent running
- user enters access/verify only once for *VIST*A logon (GUI or roll and scroll)
- only works for Telnet based roll and scroll sessions
- parameters control availability at system and user levels

Resource Devices

CPRS adds four new resource devices:

- OR MOVEMENT RESOURCE
- ORB NOTIFICATION RESOURCE
- ORW THREAD RESOURCE

- ORW/PXAPI RESOURCE

Errors can cause resources to "plug"

Monitor resources using TaskMan

KERNEL tools "unplug" resources

```
Select Device Management Option: CLEAR ONE<Enter>Resource
Select RESOURCE NAME: HLCS RESO<Enter>URCE
Select SLOTS IN USE SLOT IN USE: ?< <Enter>1
2
3
Select SLOTS IN USE SLOT IN USE: 1<Enter>
```

Use of KERNEL HFS Files

- CPRS uses host file capabilities to display **V*IST*A** reports in ListMan and GUI

- HFS files require ZIS-related KERNEL patches (especially OpenM sites!)

- Ensure KERNEL parameter DEFAULT DIRECTORY FOR HFS is set appropriately

- Ensure directory has read, write, and delete privileges enabled

Time-Delay Order Issues

- Time delay orders for admission, transfer, or discharge are available

- Time delay admission and transfer orders are based on treating specialty

- If MAS Movement is entered with different specialty, orders will NOT release!

- Option exists to release or cancel time delay orders

Discharge meds release to pharmacy immediately

GUI Debugging Tools

The main debugging tools that are built into the CPRS executable itself are:

1. DEBUG command line parameter—this just uses the broker Debug property. If the keyword DEBUG is on the CPRS executable command line, it sets the debug property to true. This allows Customer Support to step through M code without accessing Delphi source code.

2. Last Broker Call—CPRS has a wrapper around the broker component. This is mostly so it can treat broker calls as functions and procedures that accept a variable number of parameters of any type. The call allows you to use strong typing on the Delphi side while eliminating the tedium of constant type conversions when calling the broker. This wrapper also logs broker calls, so that the user can step back and see the data that was exchanged in each call. The "wrapper" is part of CPRS, in the ORNet.pas unit.

3. Show ListBox Data—CPRS uses its own custom controls extensively. These controls allow you to store strings of information along with listbox items. This call will show the data "hidden" behind each listbox item.

These are the main things we use when debugging from within the CPRS executable itself. When debugging from the Delphi environment, where there is access to the source, we use the regular Delphi debugger. Sometimes we use some additional debugging tricks when debugging from the source code— like setting up timers to continuously display state information (a poor man's ZWATCH) or calls to the Windows function "OutputDebugString" (a poor man's ZWRITE).

Configuing the client HOSTS file

The workstation can be configured in such a way that the client HOSTS file is not used for RPC Broker connections or other TELNET connections. Set up the WinNT or Win95 client as follows:

1. Right-click Network Neighborhood Select Properties

2. Select the Protocols Tab

3. Highlight the Network Protocol: TCP/IP Protocol

4. Select Properties

5. Select the DNS Tab

6. In the Domain box enter the local Bind Server Domain Name   i.e. SiteName.MED.VA.GOV

7. In the DNS Service Search Order box add the Bind Server numeric address as the top entry,

8. Remove any existing entries and add entries in the DNS search order appropriate for your site as stated in FORUM message Subj: VA Intranet Gateway Status [#25087701]

9. Click Apply

10. Click OK Shutdown &

11. Re-Start the client workstation

12. Connect to VISTA via the terminal emulator you choose.

Most terminal emulators can be configured (with a macro) so that the Username prompt is stuffed with the appropriate Username and the end-user only sees the Access/Verify code prompt.

OE/RR Error File

ORERR routine — purpose

1. Log errors in the data stream without generating hard errors that would cause Users to be thrown off the system.

2. Puts the runtime information into a Fileman compatible file that support people can search with Fileman tools.

DO ^ORERR(ORTYP,ORMSG,ORVAR)

Where…

ORTYP is copied verbatim into the 'ERROR TYPE' field.

ORMSG either names the HL7 message array or is the HL7 message array

ORVAR is an array that has as its subscripts the names of local variables that are to be saved in the error record. If the local variable named happens to be an array then the entire local array is saved.

Example 1: ORM+5 → I '$O(@ORMSG@(0)) D ^ORERR("Missing HL7
        message",.ORMSG) Q

Example 2: ORM+7 → I 'MSH D ^ORERR("Missing or invalid MSH
        segment",.ORMSG) Q

Example 3: ORM+9 → I '$L(ORNMSP) D ^ORERR("Missing or invalid sending
        application",.ORMSG) Q

Example 4: ORM+10 → D PID I '$G(ORVP) D ^ORERR("Missing or invalid
        patient ID",.ORMSG) Q

Example 5: EN1+10^ORM. → S ORTN="EN^ORM"_ORNMSP D @ORTN

  (ORTN in this example is equal to 'ORMRA')

EN+1^ORMRA → I '$L($T(@ORDCNTRL)) S ORERR="Invalid order control
        code" Q

  (OOPS… ORDCNTRL has an invalid value so back to ^ORM)

```
EN1+11^ORM → D:$D(ORERR) ERROR K ^TMP("ORWORD",$J)
```

 (Error detected… Do error subroutine)

```
ERROR+2^ORM →  N ORV S ORV("XQY0")="" D ^ORERR(ORERR,.ORMSG,.ORV)
```

 (While you're at it, save the value of 'XQY0', too…)

The following appears in the OE/RR ERRORS (100.4) File after Example 5:

```
DATE/TIME: JUL 23, 1997@1024
ION: TNA:
DUZ: USER,TEST
ERROR TYPE: Invalid order control code
ERROR TEXT:   (word processing)
  HL7 Array:


  1: MSH|^~\&|LABORATORY|5000|||ORM
  2: PID||37|37;DPT(|APPLESEED,JOHNNY|
  3: PV1|I|1|||||||||
  4: ORC|ZZTOP|10633^OR|1557;2970723;1^LRCH||IP||^^^19970723082138^||199707230817|
      5^USER,TEST|5^USER,TEST||19970723082138|
        5:
      OBR|1||84295.0000^Sodium^99NLT^176^SODIUM^99LRT||19970723082138|||O||19970
          723082235|0X500;SERUM;SNM;1;BLOOD  ;99LRS|||CH 0723


        Local Variables:


            XQY0: ORMGR^CPRS Manager Menu^^M^5^^^^^^^^^1^1
```

Purposes of the Order Check raw data log

1. To store samples of the raw HL7 data so any package that deals with HL7 can have a resource for troubleshooting problems.

    2. To help establish a chronology of HL7 events for a particular patient or user.

    3. To store sample of all raw data that passes through the expert system.

Troubleshooting, cont'd

Elements of the raw data log

A record from the ORDER CHECK RAW DATA LOG File (#861)...

```
TIMESTAMP: 19971104.084910          (Year Month Day '.' Hour Minute Second
          When the data was intercepted.)


DATA ARRAY NAME: ^TMP("HLS",$J,"PS")          (Variable name of the HL7
          array.)


DATA:  ( The HL7 array data in a word processing field)


 MSH|^~\&|PHARMACY|5000|||ORR||||
 PID||66||ABC,PATIENT|||||||||||
 PV1|I|14|||||||||||719|||||||||||||||||

          ORC|OK|12378;1^OR|1038P^PS||IP|||19971104084903|1311^USER,TEST|1
          311^USER,TEST||^^99ORN^^^|


PROCESS ID: 549463468     (Job Number of the job that was affected)


PATIENT: [66] ABC, PATIENT   ( [DFN] and  Name of the patient that was
          affected)


SOURCE: HL7          ( Source of the data. Currently 4 sources: ORERR, OREPS,
          DGPM PATIENT MOVEMENTS, AND HL7.)


USER: [1311] USER,TEST    ([DUZ] and name of the user that was affected.)


VERSION: 3.0T14 released on: Oct 28, 1997  (Version of the expert system
          that was running at the time)
```

Notifications Troubleshooting Guide

Problem: Why is a user not receiving a notification for patient Smith?

Solution: Follow the notification trouble-shooting flowchart below:

Is the Notification System Enabled?

Yes   No [Enable it.]

Is TaskMan blocked by the ORB NOTIFICATION

RESOURCE entry in the RESOURCE file?

Yes [D RELONE^XUDHRES to release it.   No

Or delete all slots in use for the resource.]

 Determine Provider Recipients

Is the Provider Recipients parameter set up correctly for the notification?

Yes   No [Set proper values.]

    Display Notifications User Can Receive

Is the notification in question ON (Enabled?)

Yes   No [Enable it.]

Display Patient Alerts and Alert Recipients

Look for the alert and display recipients for the related alert.

Did the user appear on the list of recipients?

Yes [They did receive the alert or   No [If the alert is order-related,

the alert was reviewed and deleted   note the order# (in brackets) of the

by another user before this user saw alert. Look in the patient's chart for

the order.]   the order.]

If the notification requires an order#, enter the order # noted above

Determine Recipients for a Notification

Did the user appear on the list of recipients?

Yes [Something may have changed   No

since the original notification was

triggered. Check team list membership,

patient's providers or notification-related

parameter values.]

Examine Notification Algorithm Source and

Notifications – How It Works documents

How is the notification processed?

Expert System Rule (MLM)   M Code

1. Examine the related rule.   1. Examine related M code.

2. Search in Fileman for the ORDER CHECK RAW   2. Ask pkg developer for assistance.

 DATA LOG file for entries that trigger the rule.

   [e.g. SOURCE equals <DATA SOURCE from algo doc>

    PATIENT contains HOOD,ROBIN

    TIMESTAMP contains 19971106.]

3. Review related entries in ORDER CHECK COMPILER FUNCTIONS.

Troubleshooting, cont'd

Problem: The follow-up action for a notification is not working.

Solution: Follow the steps below:

1. Obtain an instance of the alert in question. You may want to ask a recipient of the alert to forward the alert to you via the View Alerts action.

1. Search in the Kernel Alert file for the entry corresponding to the alert.

    A. D ^%G

    B. ^XTV(8992,<DUZ>,"XQA",<date alert was triggered in FM format – e.g.

    2971106:2971107>

You should get strings that look something like this:

```
    ˆXTV(8992,13,"XQA",2971105.115326,0) =
2971105.115326ˆOR,66,50;1311;2971105.115326ˆ

    ABC,PATIE (A4321): New order(s) placed.ˆˆRˆˆNEWORDˆ ORB3FUP1ˆˆˆˆˆ1ˆ1

    ˆXTV(8992,13,"XQA",2971105.115326,1) = @OR|164V@PS
```

In the 0 node, the important pieces are:

    2: XQAID^OR,<dfn>,<100.9 ien>;<triggering duz>;<alert fm d/t>

    3: alert message

    7: tag for follow-up action

    8: routine for follow-up action

    13: days before forwarding alert to user's mailman surrogate*

    14: days before forwarding alert to user's service/section chief (supervisor)*

    * forwarding alerts to surrogates/supervisors triggered via option XQALERT DELETE OLD

The 1 node contains data which may or may not be used in the follow-up action.

2. Check the follow-up M code and data used to see if the follow-up action occurs properly.

Problem: I can't figure out what providers are linked to a patient via teams.

Solution: D TPTPR^ORQPTQ1(.ORY,<dfn>) ZW ORY This will list all providers linked to the patient via teams. [Hint: look at the routine ORQPTQ1 for other entry points related to team lists and patient data.]

Problem: After an alert is processed, it goes away. Where does it go?

Solution: Kernel stores alerts that have been processed or deleted in the Alert Tracking file [^XTV(8992.1]. You can use FileMan to search or inquire regarding entries in this file. For a FileMan inquire you can enter the user's name, patient's name or FileMan date/time to obtain results.

Problem: The user had an alert but now it is gone and they did nothing to cause the alert to go away.

Solution: To clean up old alerts, sites should run the Kernel option XQALERT DELETE OLD on a daily basis. If the alert is older than the allotted number of days in the Kernel option, the alert would have been deleted. If the alert does not meet the criteria for Kernel option deletion, another user may have performed the action necessary to delete the alert. Check the parameter value for the alert to determine if it should be deleted for all recipients when one recipient performs the follow-up action or reviews the alert. This value is usually not changed by the site so review the value in the Notification Exported Default Values doc or after running FileMan in programmer mode check the value for OERR via the parameter editor.

```
D ^XPAREDIT

Select PARAMETER DEFINITION NAME:  ORB DELETE MECHANISM

Enter selection:  3 (Package [ORDER ENTRY/RESULTS REPORTING]
```

Problem: A user wants you to delete one or more alerts.

Solution: Give yourself the XQAL-DELETE key. Run the option XQALERT BY USER DELETE. You'll get a list of pending alerts for the user. Select those you wish to delete.

Problem: I'm not getting notifications for some lab results.

Solution: Some lab tests are not meant to be resulted. This is indicated in the Lab test file (#60) and the Orderable Items file (#101.43). In both files there is a field called TYPE. The field in both files is a set of codes which indicates if the lab test is to be resulted or not. The codes consist of I:Input, O:Output, B:Both and N:Neither. If the TYPE for a lab test in the Lab file or Orderable Item file is set to "I" or "N," results will not be sent by lab. This may sometimes be set incorrectly and should be looked at when troubleshooting lab results-related notifications/alerts such as Lab Results, Abnormal Lab Results, Critical Lab

Results, and STAT Results Available. If a lab results-related notification is not firing for a particular lab test, check the TYPE field for that test in the Lab Test and Orderable Items files. If it is "I" or "N" in either file, the results will not be posted via HL7 and the alert will not be sent.

Problem: None of our users are getting several notifications they should be getting. Are there any other reasons besides those listed above?

Solution: Check ORMTIME.

ORMTIME is automatically scheduled once the Orders conversion is done. The following notifications/alerts are triggered via ORMTIME. If ORMTIME is not running/queued, they will not be sent.

DNR Expiring

Medications Expiring

NPO Diet > 72 Hours

Unverified Medication Order

Unverified Order

Notification Recipient Determination

The OE/RR Notifications utility determines recipients of a patient's particular notification/alert in the following order:

1. Check the value of the parameter ORB SYSTEM ENABLE/DISABLE. If it is 'D'isabled, do not process or send any notifications. If it is 'E'nabled, process notifications as outlined below.

2. Get the default/regular recipients for this notification regardless of patient from the parameter ORB DEFAULT RECIPIENTS. Accessed via the Option ORB3 DEFAULT RECIPIENTS, teams or individuals can be set up to automatically always get a notification. If a team is identified, every user on that team (regardless of other parameter, option settings), will receive the notification/alert. Good uses of this parameter include troubleshooting notifications and delivering the Food/Drug Interaction notification [for all patients] to a team of dietitians.

3. Obtain the default/regular device recipients for this notification regardless of patient from the parameter ORB DEFAULT DEVICE RECIPIENTS. Accessed via the Option ORB3 DEFAULT DEVICE RECIPIENTS, one or more devices can be set up to automatically always get a notification. The device may be a printer, file or any other device defined at the site. This is useful if every instance of an alert across all patients is desired for QA, JCAHO or research purposes.

4. Additional potential recipients are obtained from:

    a) A recipient list identified by the service triggering the alert. For example, Radiology sends OE/RR Notifications a list of potential recipients when its STAT Imaging Request notification is triggered.

b) Provider-related recipients indicated in the parameter ORB PROVIDER RECIPIENTS. Accessed via the Option ORB3 PROVIDER RECIPIENTS, the Primary provider, Attending physician, patient care Teams, or Ordering/requesting provider can be set to receive a notification. If set for Teams, all

teams to which the patient belongs will be evaluated to obtained potential recipients. If set for Orderer and an order number is passed by the service triggering the alert, the ordering/requesting provider will be determined and added to the potential list. In addition, if the Orderer does not have signature authority (does not hold the ORES key) and the notification either Order Requires Electronic Signature or Order Requires Co-signature, the teams to which the Orderer belongs will be evaluated and every user on those teams (which also include the patient), will be added to the potential recipient list.

5.   Each user on the potential recipient list is evaluated according to values set for entities identified in the parameter ORB PROCESSING FLAG. These entity values are accessed via the Option ORB3 PROCESSING FLAG also called Enable/Disable Notifications. These entity values are processed in the following order to determine if that particular user should receive the notification/alert or not. *The first condition met stops the processing and determines whether or not the user will receive the notification.* Processing order:

a)   If the USER's value for the notification is set to Mandatory or Enabled, the user will receive the notification.

b)   If the user's TEAM value for the notification is set to Mandatory, the user will receive the notification.

c)   If the user's SERVICE/SECTION value for the notification is set to Mandatory, the user will receive the notification.

d)   If the PATIENT's HOSPITAL LOCATION (inpatients only) value for the notification is set to Mandatory, the user will receive the notification.

e)   If the PATIENT's HOSPITAL LOCATION (inpatients only) value for the notification is set to Disabled, the user will NOT receive the notification.

f)   If the user's DIVISION value for the notification is set to Mandatory, the user will receive the notification.

g)   If the SYSTEM value for the notification is set to Mandatory and DIVISION has no value, the user will receive the notification.

h)   If the PACKAGE (OERR-exported) value for the notification is set to Mandatory and SYSTEM and DIVISION have no value, the user will receive the notification.

i)   If the USER's value for the notification is set to Disabled, the user will NOT receive the notification.

j)   If the user's TEAM value for the notification is set to Disabled, the user will NOT receive the notification.

k)   If the user's SERVICE/SECTION value for the notification is set to Disabled, the user will NOT receive the notification.

l)   If the user's DIVISION value for the notification is set to Disabled, the user will NOT receive the notification.

m)   If the SYSTEM value for the notification is set to Disabled and DIVISION has no value, the user will NOT receive the notification.

n)   If the PACKAGE (OERR-exported) value for the notification is set to Disabled and SYSTEM and DIVISION have no value, the user will NOT receive the notification.

o)   If none of the above parameter values are found, the notification is processed as Disabled and the user will NOT receive the notification.
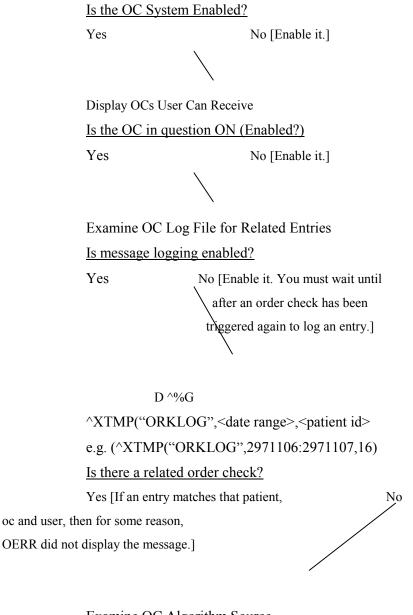
Troubleshooting, cont'd

Notification	Expert Rule (Mlm)	M Code	Data Source
ABNORMAL IMAGING RESULTS		Radiology Pkg	Radiology Pkg
ABNORMAL LAB RESULTS (ACTION)	ABNORMAL LAB RESULTS		HL7
ABNORMAL LAB RESULT (INFO)	ABNORMAL LAB RESULTS		HL7
ADMISSION	PATIENT ADMISSION		DGPM
CONSULT/REQUEST CANCEL/HOLD		Consults Pkg	Consults Pkg
CONSULT/REQUEST RESOLUTION		Consults Pkg	Consults Pkg
CRITICAL LAB RESULT (INFO)	CRITICAL HIGH/LOW LAB RESULTS		HL7
CRITICAL LAB RESULTS (ACTION)	CRITICAL HIGH/LOW LAB RESULTS		HL7
DECEASED PATIENT		NOTE^ORX3	MAS protocols, fields
DISCHARGE	PATIENT DISCHARGE		DGPM
DNR EXPIRING		EXPIR^ORB31	ORMTIME (TaskMan)
ERROR MESSAGE		^OCX RTNS	Expert System
FLAGGED ORDERS	ORDER FLAGGED FOR CLARIFICATION		OERR
FOOD/DRUG INTERACTION	FOOD/DRUG INTERACTION		HL7
IMAGING PATIENT EXAMINED		Radiology Pkg	Radiology Pkg
IMAGING REQUEST CANCEL/HELD	IMAGING REQUEST CANCELLED/HELD		HL7
IMAGING RESULTS		Radiology Pkg	Radiology Pkg
IMAGING RESULTS AMENDED		Radiology Pkg	Radiology Pkg
LAB ORDER CANCELED	LAB ORDER CANCELLED		HL7
LAB RESULTS	LAB RESULTS		HL7
MEDICATIONS EXPIRING		EXPIR^ORB31	ORMTIME (TaskMan)
NEW ORDER	NEW ORDER PLACED		HL7
NEW SERVICE CONSULT/REQUEST		Consults Pkg	Consults Pkg
NPO DIET MORE THAN 72 HRS		NPO^ORB31	ORMTIME (TaskMan)
ORDER CHECK		EN^ORKCHK	Order Checking
ORDER REQUIRES CHART SIGNATURE	ORDER REQUIRES CHART SIGNATURE		OERR
ORDER REQUIRES CO-SIGNATURE	ORDER REQUIRES CO-SIGNATURE		OERR
ORDER REQUIRES ELEC SIGNATURE	ORDER REQUIRES ELECTRONIC SIGN.		OERR
ORDERER-FLAGGED RESULTS	ORDERER FLAGGED RESULTS AVAILABLE		OERR
SERVICE ORDER REQ CHART SIGN	SERVICE ORDER REQUIRES CHART SIGN.		OERR
SITE-FLAGGED ORDER	SITE FLAGGED ORDER		HL7
SITE-FLAGGED RESULTS	SITE FLAGGED RESULT		HL7
STAT IMAGING REQUEST		Radiology Pkg	Radiology Pkg
STAT ORDER	STAT ORDER PLACED		HL7

STAT RESULTS	STAT RESULTS AVAILABLE		HL7
TRANSFER FROM PSYCHIATRY	PATIENT TRANSFERRED FROM PSYCH.		DGPM
UNSCHEDULED VISIT		NOTE^ORX3	MAS protocols, fields
UNVERIFIED MEDICATION ORDER		UNVER^ORB31	ORMTIME (TaskMan)
URGENT IMAGING REQUEST		Radiology Pkg	Radiology Pkg

Order Checking Troubleshooting

1. Problem: Not getting order checks

Trouble-shooting Flowchart

Is the OC System Enabled?

Yes   No [Enable it.]

Display OCs User Can Receive

Is the OC in question ON (Enabled?)

Yes   No [Enable it.]

Examine OC Log File for Related Entries

Is message logging enabled?

Yes   No [Enable it. You must wait until

                       after an order check has been

                       triggered again to log an entry.]

          D ^%G

^XTMP("ORKLOG",<date range>,<patient id>

e.g. (^XTMP("ORKLOG",2971106:2971107,16)

Is there a related order check?

        Yes [If an entry matches that patient,   No

oc and user, then for some reason,

OERR did not display the message.]

Examine OC Algorithm Source

How is the OC processed?

Expert System Rule (MLM)

1. Examine the related rule.

2. Search the ORDER CHECK RAW
   DATA LOG file for entries that
   trigger the rule: SOURCE equals OEPS
   PATIENT contains HOOD,ROBIN
   TIMESTAMP contains 19971106.

3. Review related entries in ORDER CHECK
   COMPILER FUNCTIONS.

4. Check linkages used in OC Term Lookup.

M Code

1. Determine main routine for OC's mode.

2. Examine related M code.

3. Re-examine ^XTMP("ORKLOG" for
   entries/data used in the M code.

4. Test by plugging data from ^XTMP
   log file into M code.

Troubleshooting, cont'd

Problem: Not getting expected order checks.

Possible Reasons:

1. Orderer does not select a dispense drug when ordering a medication. Critical drug interactions, duplicate drug and duplicate drug class order checks will not occur.

2. Orderer places an order for an IV solution. Duplicate drug order check will not occur.

3. During recompilation of the CPRS Expert System rules, expert system-based order checks will not occur.

4. If the CPRS Expert System encounters an error, expert system-based order checks will not occur.

5. Ordered medication does not have a corresponding entry (pointer) in the Nat'l Drug File. Drug-allergy interaction order check will not occur.

6. Ordered lab procedure does not have an entry in the Lab file [#60] MAX. ORDER FREQ. field (under the COLLECTION SAMPLE multiple). The Maximum Order Frequency portion of the Lab Order Freq Restrictions order check will not occur.

7. Ordered lab procedure does not have an entry in the Lab file [#60] SINGLE DAY MAX ORDER FREQ field (under the COLLECTION SAMPLE multiple). The Single Day Maximum Order Frequency portion of the Lab Order Freq Restrictions order check will not occur.

8. Ordered lab procedure has entries in the Lab file [#60] for both MAX. ORDER FREQ. and SINGLE DAY MAX ORDER FREQ fields (under the COLLECTION SAMPLE multiple). The Single Day Maximum Order Frequency portion of the Lab Order Freq Restrictions order check will not occur.

Troubleshooting, cont'd

Problem: Not getting expected order checks, cont'd

Possible Reasons:

9. Local terms at site not linked (or linked incorrectly) to Nat'l CPRS Expert System terms. See instructions

Nat'l Expert System Term	Linked File	Order Check
SERUM CREATININE	LAB [60]	AMINOGLYCOSIDE ORDERED
		BIOCHEM ABNORMALITY FOR CONTRAST MEDIA
		ESTIMATED CREATININE CLEARANCE
		RENAL FUNCTIONS OVER AGE 65
SERUM UREA NITROGEN	LAB [60]	AMINOGLYCOSIDE ORDERED
		BIOCHEM ABNORMALITY FOR CONTRAST MEDIA
		ESTIMATED CREATININE CLEARANCE
		RENAL FUNCTIONS OVER AGE 65
ANGIOGRAM,CATH – PERIPHERA	OI [101.43]	MISSING LAB TESTS FOR ANGIOGRAM PROCEDUR
PROTHROMBIN TIME	OI [101.43]	MISSING LAB TESTS FOR ANGIOGRAM PROCEDUR
THROMBOPLASTIN TIME PARTIA	OI [101.43]	MISSING LAB TESTS FOR ANGIOGRAM PROCEDUR
WHITE BLOOD COUNT (WBC)	LAB [60]	CLOZAPINE APPROPRIATENESS
BLOOD SPECIMEN	TOPOG [61]	CLOZAPINE APPROPRIATENESS

SERUM SPECIMEN	TOPOG [61]	AMINOGLYCOSIDE ORDERED
		BIOCHEM ABNORMALITY FOR CONTRAST MEDIA
		ESTIMATED CREATININE CLEARANCE
		RENAL FUNCTIONS OVER AGE 65

Troubleshooting, cont'd

Order Checking and OE/RR Dialogs

A. Mechanism:

1. OE/RR calls EN^ORKCHK at the trigger events.

   - Routines which call EN^ORKCHK: ORCDLG, ORCDPS, ORCMENU1

   a)Events:

   - Ordering dialog/display

   - Orderable item selection

   - Order acceptance

   - Ordering session completion

   - Special events:

      - Delayed/time-release orders initiated

      - Orders Renewed or Edited

      - Orders signed in a later session (delayed signature)

2. EN^ORKCHK Parameters:

   a)Array of return messages in format: order number^order check ien[#100.8]^clinical danger level^message

   - return array will be sorted by clinical danger level, order number, then sequence processed

- clinical danger levels are expressed as integers: 1 = High, 2 = Moderate, 3 = Low

- DISPLAY mode order checks return a clinical danger level of "' (null)

   b) Patient dfn

   c) Array of ordering information in format: orderable item ien|filler application (PS, RA, FH, LR, etc.)|nat'l id^nat'l text^nat'l coding system^local id^local text^local coding system|order effective date/time|order number|filler-specific data

   Filler -specific data:

      LR: specimen of the lab test ordered in the format: ien of

      Topography (specimen) file [^LAB(61,]

      PS: medications ordered during this session in the format:

      med1^med2^med3^…

   d) Mode/event trigger (DISPLAY,SELECT,ACCEPT,SESSION,NOTIF,ALL)

3. Event Examples (this example covers the List Manager interface, a similar process will occur in the GUI where the ORK TRIGGER remote procedure call will be invoked):

a)DISPLAY example:

```
S OCINFO(1)="|PS||||"
S OCINFO=1
D EN^ORKCHK(.RTN,1234,.OCINFO,"DISPLAY")
```

Troubleshooting, cont'd

Order Checking and OE/RR Dialogs, cont'd

    b)   SELECT example:

                S OCINFO(1)="1385|PS|576.4^DIGOXIN 0.5MG
TAB^99NDF^4213^DIGOXIN 0.5MG TAB^99PSD|||"

                S OCINFO=1

                D EN^ORKCHK(.RTN,1234,.OCINFO,"SELECT")

    c)   ACCEPT example:

                S OCINFO(1)="1385|PS|576.4^DIGOXIN 0.5MG
TAB^99NDF^4213^DIGOXIN 0.5MG TAB^99PSD |2960229.103021||"

                S OCINFO=1

                D EN^ORKCHK(.RTN,1234,.OCINFO,"ACCEPT")

                * order d/t not available for PS orders due to PS restrictions

    d)   SESSION example:

                S OCINFO(1)="1385|PS|576.4^DIGOXIN 0.5MG
TAB^99NDF^4213^DIGOXIN 0.5MG TAB^99PSD |2960229.103021|4332|"

                S OCINFO(2)=" 2244|PS|355.2^PENICILLIN 250MG
TAB^99NDF^1334^PENICILLIN 250MG TAB^99PSD |2960229.103151|4333|med1"

                S OCINFO(3)="57|RA|71020^CHEST X-RAY^CPT4^58^Chest 2 views
PA&LAT^99RAP|2960229.103410|4334|"

                S OCINFO(4)="2730|LR|84330.0000^^NLT^175^GLUCOSE^99LRT|
2970211.1601|8119|72"

                S OCINFO=4

                D EN^ORKCHK(.RTN,1234,.OCINFO,"SESSION")

    e)   NOTIF (delayed/time release orders) example:

                S OCINFO(1)="1385|PS|576.4^DIGOXIN 0.5MG
TAB^99NDF^4213^DIGOXIN 0.5MG TAB^99PSD |2960229.103021|4332|"

                S OCINFO=1

                D EN^ORKCHK(.RTN,1234,.OCINFO,"NOTIF")

    f)   ALL (renew, edit and signature delayed orders) example:

                S OCINFO(1)="1385|PS|576.4^DIGOXIN 0.5MG
TAB^99NDF^4213^DIGOXIN 0.5MG TAB^99PSD |2960229.103021||"

                S OCINFO=1

                D EN^ORKCHK(.RTN,1234,.OCINFO,"ALL")

Order Checking and OE/RR Dialogs, cont'd

4. For each member of the order information array:

   a) Initiate non-MLM order checks designated as appropriate for that

      mode/event trigger

   b) Initiate MLM order checks designated as appropriate for that mode/event trigger (each MLM created for order checking will have a mode/event trigger data element indicating when the MLM is to be processed)

B. Order checks categorized by event:

   1. Ordering dialog/display - including

      - Estimated creatinine clearance, for patients <50 [MLM]

      - Order checking not available/supported

      - Renal functions for patients over 65 [MLM]

         - Polypharmacy [MLM]

   2. Orderable item selection

      - Duplicate drug orders (against existing meds)

      - Duplicate drug class orders (against existing meds)

      - Critical drug interactions (against existing meds)

      - Clozapine appropriateness [MLM]

      - Allergy-contrast media interactions [MLM]

      - Physical limitations for CT and MRI scanners [MLM]

      - Biochem abnormality for contrast media [MLM]

      - Glucophage-contrast media interaction [MLM]

      - Dispense drug not selected

      - Recent barium study [MLM]

   3. Order acceptance (includes checks where time is a factor in reducing false positives)

      - Duplicate orders (non-med)

      - Allergy-drug interactions

      - Recent oral cholecystogram [MLM]

- Lab order frequency restrictions

4. Ordering session completion
    - Aminoglycosides [MLM]
    - Labs req'd with radiology orders [MLM]
    - Duplicate drug orders (against meds placed in same session)
    - Duplicate drug class orders (against meds placed in same session)
    - Critical drug interactions (against meds placed in same session)

Order Checking and OE/RR Dialogs, cont'd

C. Order Checking Dialog and Override Mechanism:

1. List of Order Check messages presented to user sorted by clinical danger level

2. Based on the Order Check's clinical danger level and user's OE/RR 2.5 elec signature key:

    a) User holds OREMAS key:

    - Process without prompting for justification but allow them to 'Cancel' or 'OK' the order

    b) User does not hold OREMAS key and clinical danger level is '2' (Moderate) or '3' (Low):

    - Process without prompting for justification but allow them to 'Cancel' or 'OK' the order

    c) User does not hold OREMAS key and clinical danger level is '1' (High):

    - Prompt for justification by prompting to 'Cancel' or 'Override'. If select 'Override', prompt for justification (allow selection from a list or to enter free text). If a justification is entered, allow them to 'Cancel' or 'OK'

3. Order check messages and any accompanying over-ride justifications are sent with the order to the filling package and are displayed in the order's detailed display. If the clinical danger level for an order check message is "High" (value of '1'), the order check message and justification are stored in the Order file [#100] under the '9' node.

FAQs (Frequently Asked Questions)

(based on questions from CPRS test sites)

Q. What is the relationship between OE/RR and CPRS? I sometimes hear references to OE/RR 3.0 and much of the CPRS package just seems to be an enhanced OE/RR 2.5.

A. This distinction does get fuzzy at times. CPRS is the umbrella package for a much more comprehensive suite of software. OE/RR 3.0 is a component of CPRS, and can't be used outside of CPRS. Many of the packages contained within CPRS still have independent lives, for use by their services for administrative and other purposes, and occasionally to add and review orders (known as "backdoor" ordering). The CPRS documentation set mainly documents the OE/RR portion of CPRS (files and routines in the OR, OEX, and XPAR namespaces).

Q. How do sites handle document verification (nurse and clerk)? Do they still print 24-hour summaries, chart copies, etc. for nurses and clerks to initial? How would they know, otherwise, what's been done?

A. West Palm Beach requires online verification. Nurses do the majority of the verification, and they do this online, periodically throughout the day, at designated workstations on the wards or clinics. Some copies are printed and put in the chart for contingencies and backup, but basically, it's a paperless system.

Q. What are the benefits of a GUI over the traditional **V***IST***A** programs or the List Manager version of CPRS?

A. A Windows-type environment (GUI) allows you to do many things easier and more efficiently. The visibility and accessibility of many components of a patient record allow you to move among them more freely to review and link data. You can choose your own workflow rather than having it dictated by the computer in a sequential way. Sometimes, the traditional roll 'n' scroll and List Manager have advantages. For straightforward data entry, these methods can be faster and less complex.

Q. When I write an order for digoxin and quinidine at the same time, the order check does not seem to take place until after it would with an order check between a new med and an old one. Did I understand that correctly?

A. Your observations are correct regarding the order checking against newmeds vs. old meds. Almost all medication-related order checks areperformed by querying the pharmacy package. During the ordering process,pharmacy doesn't know about the meds placed during the ordering session. Meds are not "released" to the pharmacy service until they have beensigned so checks between meds placed in the session cannot occur. Checksagainst meds already released to Pharmacy occur within the orderingprocess. Being unable to check against meds placed in a session was notacceptable so we devised a method where at the end of the ordering session all meds placed during the session are passed to the pharmacy package and they perform the med vs. med checks as if the patient were already receivingthem. We

waited until after the session is completed (just before electronicsignature), because order checks are fairly resource-intensive and this approach minimizes the delays between prompts.

Q. You used to be able to get a readout for lab alerts. Now, I get "abn: ldl 160" and that's it, not the whole lipid profile. Plus, you can't get into the lab/note file without re-entering the patient name.

A. The way lab results (abnormal/critical) are displayed in the View Alerts list has been changed. In the old version, they required you to select the alert (a follow-up action) which displayed the abnormal/critical results along with other results associated with that lab order. In CPRS, each abnormal/critical lab result has its own alert, including abbreviated lab test name and result value but without the follow-up display of other associated results. There were many requests for this change from OE/RR 2.5 users. We hope you can get used to it and in the end find it to be better.

You can set yourself up to get a Lab Results alert that will display all lab results for a lab order. This alert is not given to everyone because it triggers with every lab result and can be a great annoyance. In CPRS, you have more flexibility to turn notifications on or off and at different levels—site, division, service, or by user).

Q: Why don't I get notifications for some lab results?

A: Some lab tests are not meant to be resulted. This is indicated in the Lab test file (#60) and the Orderable Items file (#101.43). In both files there is a field called TYPE. The field in both files is a set of codes which indicates if the lab test is to be resulted or not. The codes consist of I:Input, O:Output, B:Both and N:Neither. If the TYPE for a lab test in the Lab file or Orderable Item file is set to "I" or "N," results will not be sent by lab. This may sometimes be set incorrectly and should be looked at when troubleshooting lab results-related notifications/alerts such as Lab Results, Abnormal Lab Results, Critical Lab Results, and STAT Results Available. If a lab results-related notification is not firing for a particular lab test, check the TYPE field for that test in the Lab Test and Orderable Items files. If it is "I" or "N" in either file, the results will not be posted via HL7 and the alert will not be sent.

Notes on Notifications and Order Checks

All alerts and order checks are a nuisance to some and a benefit to others. That is why they were designed with the flexibility to enable or disable them at many different levels.

Try disabling the objectionable order checks at the patient location level. The check will not be displayed for patients in that location (inpatient only) unless the user specifically has the order check enabled.
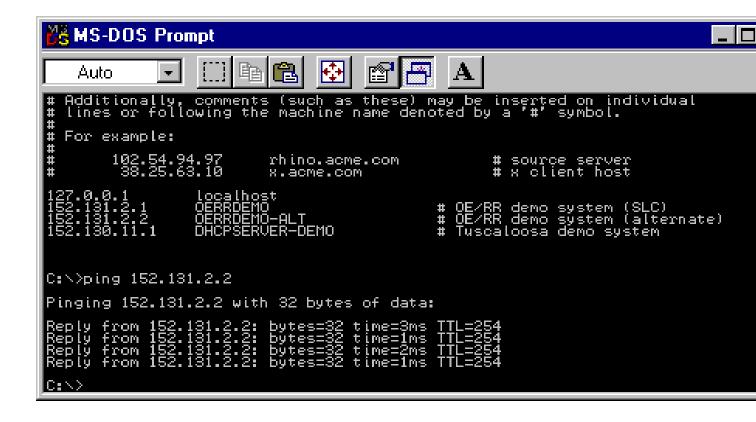
Another approach would be to disable the order check for your site (VAMC level) then enable it for the locations or users where the check is desired. You can also screen (enable or disable) order checks based on the user's service/specialty.

For order checks, the order of precedence when determining if order check should be performed or not is USER -> PT LOCATION -> SERVICE -> VAMC. The user's level has priority over patient location which priority over the user's service/ specialty and so on. If a value does not exist for the user (they have not enabled or disabled the order check), the software looks up the chain for a value at the patient location level. The software looks up the chain until a value is found. If nothing exists for the VAMC, a value released with CPRS is used.

While notifications use a similar hierarchy for determining whether or not an alert should be sent, it is more complicated because a notification/alert can be set to "mandatory." A value of "mandatory" overrides most other values for that notification/alert.

Problem: Setting up or accessing a server

Using PING to test access

```
MS-DOS Prompt                                                    _ □

Auto  ▼    [ ]  🗐  📋  ❖  ☕  🗗  A

# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97        rhino.acme.com              # source server
#       38.25.63.10         x.acme.com                  # x client host

127.0.0.1           localhost
152.131.2.1         OERRDEMO                # OE/RR demo system (SLC)
152.131.2.2         OERRDEMO-ALT            # OE/RR demo system (alternate)
152.130.11.1        DHCPSERVER-DEMO         # Tuscaloosa demo system


C:\>ping 152.131.2.2

Pinging 152.131.2.2 with 32 bytes of data:

Reply from 152.131.2.2: bytes=32 time=3ms TTL=254
Reply from 152.131.2.2: bytes=32 time=1ms TTL=254
Reply from 152.131.2.2: bytes=32 time=2ms TTL=254
Reply from 152.131.2.2: bytes=32 time=1ms TTL=254

C:\>
```

Appendix A—CPRS Package Security

CPRS security is maintained through security keys, menu assignment, and VA FileMan protection.

Security Keys

ORES

ORELSE

OREMAS

Do not assign more than one of these keys per user.

ORES Key

● Assigned to users authorized to write and sign orders.

● Typically assigned to licensed physician.

● Allows holders to electronically sign orders. Available to service immediately.

ORELSE Key

● Assigned to users authorized to release physician's orders.

● Typically assigned to RN's.

● Releases orders to service for immediate action.

OREMAS Key

● Assigned to users authorized to release patient orders as signed on chart.

● Typically assigned to Ward Clerks.

● Releases orders to service for immediate action.

Electronic Signature

An electronic signature is the private code that an authorized user types into the system after performing certain actions. For CPRS, it's used by clinicians entering orders. This signature has the same validity as the written signature on the chart.

Implementing electronic signature for CPRS is a four-step process:

1. Define the clinician as a provider in the NEW PERSON file.

2. Assign the clinician the Provider key (while in the NEW PERSON file).

2. Assign the ORES key to clinicians who have signature authority.

3. Assign electronic signature codes (this can be done by the coordinator, at the same time as defining the clinician as a provider in the NEW PERSON file, or by the clinician, using *Electronic Signature Code Edit* on the User's Toolbox menu. See instructions on following pages).

Users may have the ORES key but not have an electronic signature code, and will, therefore, not be allowed to electronically sign orders on the system.

☞ **NOTE**: Until ORES key holders have an electronic signature code, the system assumes that orders entered have been entered and manually signed "on chart"; orders are automatically released to the ancillary service for action.

Once ORES key holders have an electronic signature code, they will be prompted to enter the electronic signature after accepting the orders. If the electronic signature code is entered correctly, the orders are released to the ancillary services for action. If the electronic signature code is not entered, or is entered incorrectly, the orders are *not* released to the ancillary services for action, but are held in an unreleased/unsigned status. Key holders are given three chances to correctly enter their signature codes.

GUI Review and Sign works as follows, according to signature status:

User has provider key only (med student): If there are notes the user can sign, the ES panel appears in Review/Sign Changes; otherwise it is hidden. Orders appear on the list with the checkbox grayed. If the ES is entered for documents, it is NOT applied to the orders.

User has OREMAS key: If users (clerks) have entered notes for which they are the author AND orders on behalf of a provider, TWO review screens will appear—one prompting for ES for the things the clerk can sign (a note), and one to allow the clerk to process the orders (mark signed on chart).

User has ORELSE key: Works the same as for clerks, but the user can also release the orders.

User has ORES key: Sees the review screen with the ES prompting, both for notes and orders.

Electronic Signature Edit option

Key holders may enter or edit their electronic signature codes through the option, "Electronic Signature Edit," on the User's Toolbox menu. To change an existing code, the user must type in the current code and then enter the new one.

Set-up of Electronic Signature

If key holders forget their electronic signature codes, they must contact their IRM Service so that the old code can be deleted. Once this has been done, the user will be allowed to enter a new code without having to know the old code. IRM staff can delete the electronic signature code by editing the field, ELECTRONIC SIGNATURE CODE (20.4) in the NEW PERSON file (200), or by using the option, "Clear Electronic Signature Code [XUSESIG CLEAR]."

ORDER PARAMETERS file (100.99)

Field 100.99,21   ELECTRONIC SIGNATURE

'0' FOR NO;

'1' FOR YES;

This field allows electronic signature functionality to be used. Use of this functionality requires some initial setup before it can be turned on. Users have to be assigned keys that allow them to perform verification steps in the order entry process. They also have to be given an electronic signature code. This also has an effect on who can be selected as the person requesting the

order.

Field 100.99,22   ELECTRONIC RECORD

'3' FOR YES (ALLOW S.O.C & WRITTEN);

'4' FOR YES (Exempt Service Entered);

A site can use this field to select 1 of 4 modes for Electronic Signature:

0>No change from current Electronic Signature functionality.

1>Yes All orders must be signed online. Signature on chart is not allowed All orders are filed initially with a signature status of Unsigned and a notification for electronic signature is sent to the ordering provider.

2>Yes (Allow S.O.C) All orders are signed online, but for those cases where an order is written and signed on the paper chart, you can so specify. Backdoor orders send a notification for electronic signature and require a signature, unless the order has a Nature of Order set to null.

3>Yes (Allow S.O.C. & Written) Is the same as option 2 except that it will allow orders sent from the ancillary packages with a nature of order of Written to be entered without requiring an electronic signature.

4>Yes (Exempt Service Entered) Is the same as option 2 except that it will allow orders sent from the ancillary packages that have not defined a nature of order to be entered without requiring an electronic signature. This is the way 'backdoor' orders were handled before the changes introduced with this new field (added with patch OR*2.5*46) were added. As of the release of patch OR*2.5*46 only Pharmacy and Lab have a way of dealing with the nature of order from the backdoor. So until the rest of the backdoor interfaces can deal with this, option 4 is the least disruptive method of evolution, and still get the enhancements for notification and signing of verbal orders.

For options 1,2,3 & 4, the default for the prompt "Do you want to mark these orders as 'Signed on Chart'" is changed to NO.

Set-up of Electronic Signature

CPRS Configuration Menu (Clin Coord)

```
AL      Allocate OE/RR Security Keys

KK      Check for Multiple Keys

ED      Edit DC Reasons

GP      GUI Parameters ...

MI      Miscellaneous Parameters

NO      Notification Mgmt Menu ...

OC      Order Checking Mgmt Menu ...

MM      Order Menu Management ...

LI      Patient List Mgmt Menu ...

FP      Print Formats

PR      Print/Report Parameters ...

RE      Release/Cancel Delayed Orders
```

Option	Option Name		Description
Allocate OE/RR Security Keys	ORCL KEY ALLOC ATION		This option is to assist the CPRS Clinical Coordinator when allocating Security keys to users of the OE/RR system.
Check for Multiple Key	ORE KEY CHECK		This option will identify users that have more than one OR key. Users must only have one OR key to correctly use the software. Any users identified need to have their keys edited so that only one of the OR keys remain (ORES, OREMAS, ORELSE).

1. Assign the appropriate keys to the appropriate users, using the CPRS Configuration Menu (Clin Coord) option, *Allocate CPRS Security Keys*.

2. Turn electronic signature on in the PARAMETERS file, to make electronic signature requirements active. If the ELECTRONIC SIGNATURE parameter is turned off (set to '0'), orders become active automatically after they're entered.

3. Users with the ORES key will not see the electronic signature prompts until they add their signature code (through the option *Edit Electronic Signature*). If they have the ORES key, but haven't added a signature code, they will be prompted:

```
...you do not have an electronic signature code
Do you want to give yourself a code now? YES//<Enter>  (YES)
```

If the ORES key holder answers no to the above prompt, this dialogue will appear:

```
You did not enter a signature code!
...orders requiring signature will be marked as 'SIGNED ON CHART'.
```

Once ORES keyholders add their signature codes, they will see:

```
To electronically sign these orders...
Enter Signature Code: (xxxxxxx) <hidden>
SIGNED
```

4. Users with the ORELSE and OREMAS keys will see the following prompts after entering orders:

```
Select Action: Accept Orders// <Enter>   Accept Orders


...insufficient signature authority
   NOT SIGNED
Do you want to mark these orders as 'Signed on Chart'? YES//  <RET> (YES)
```

4 a. If ORELSE key holders answer no, the computer dialogue will be:

```
...insufficient signature authority
   NOT SIGNED
Do you want to mark these orders as 'Signed on Chart'? YES// n  (NO)
These orders have not been signed by an authorized physician
Do you still want to release these orders to the service? YES// <RET> (YES)
NATURE OF ORDER: VERBAL// <RET>
```

4 b. If OREMAS key holders answer no, the dialogue will be :

```
...insufficient signature authority
   NOT SIGNED
Do you want to mark these orders as 'Signed on Chart'? YES// n  (NO)
UNRELEASED ORDERS:
 $     PROTHROMBIN TIME BLOOD PLASMA LB #1971 WC
```

Computerized Patient Record System (CPRS) V. 1.0

Technical Manual

Example of "Allocate CPRS Security Keys"

```
Select CPRS Configuration Menu (Clin Coord): ka  Allocate CPRS Security Keys
                                User Security Key Edit

KEY: ORES


This key is given to users that are authorized to write orders in the chart. Users
with this key can verify  with their electronic signature patient orders .


Edit Holders? YES//<Enter>    (YES)


Select HOLDER: MAL,ROSE// REEO,O

   HOLDER:REEO,O//<Enter>

Select HOLDER: <Enter>

===============================================================


KEY: ORELSE


This key is given to users that are authorized to release doctors' orders to an
ancillary service for action.

This key is typically given to Nurses.

Users with this key are allowed to put verbal orders in the system and release them to
the service for action..


Edit Holders? YES// n  (NO)

============================================================
KEY: OREMAS


This is the key given to MAS Ward Clerks. It allows the user to specify patient orders
as 'signed on chart' when entered, which releases the orders to the service for
action. Users with this key are not allowed to put verbal orders in the system.


Edit Holders? YES// n  (NO)
```

Menu Assignments

Menu Text	Option Name	Assignment
CPRS Manager Menu	ORMGR MENU	IRMS specialists assigned to CPRS
Clinician Menu	OR MAIN MENU CLINICIAN	Clinicians (physicians, psychologists, social workers, nurse practitioners, PAs, etc.)
Nurse Menu	OR MAIN MENU NURSE	Nurses
Ward Clerk Menu	OR MAIN MENU WARD CLERK	Ward Clerks, MAS personnel
CPRS Configuration Menu (Clin Coord)	ORCL MENU	Clinical Coordinators, ADPACS,
CPRS Configuration Menu (IRM)	ORE MGR	IRMS CPRS specialist (locked with XUPROG key)

Appendix B: Notification Parameters in CPRS 1 - Technical Overview

Introduction

CPRS Notifications uses the Parameter file [#8989.5] to export values for parameters that determine how notifications are processed. Some of these parameters replaced fields in the Notifications file [#100.9]; others are new in CPRS. When each parameter is defined and set up via the Parameter Definition file [#8989.51], a set of entity relationships is established. Most CPRS Notification parameters were set up with links to the "Package" entity. Hence, the exported notification "defaults" are found as parameter values for package entity "Order Entry/Results Reporting." Notification parameter values for package entities (Order Entry/Results Reporting) should never be modified. Changes specific to your site can be made for system, division, and other entities depending on how each parameter is defined. (Refer to CPRS Install documents for a listing of exported default values.) [Note: Some parameters have a "Location" entity type. Only inpatient location entities are used. Outpatient location entities are ignored because a patient's outpatient location cannot be reliably determined and a patient can have several simultaneous outpatient locations.]

Parameters

ORB ARCHIVE PERIOD   [Option: ORB3 ARCHIVE PERIOD]

This parameter indicates the number of days to archive a notification in the Alert Tracking file [#8992.1]. If not indicated, the default period of 30 days is used. The maximum number of days is 100,000 or about 220 years. When a notification/alert is triggered, this value is passed to the Kernel Alert Utility. Kernel Alerts stores the value with each individual alert in the Alert Tracking File [^XTV(8992.1]. The Kernel Alert Utility handles the actual display, archiving, and deletion of alerts.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- If you wish to keep alerts for a notification as long as possible, set this value to its maximum of 100,000 (about 220 years.)

ORB DEFAULT RECIPIENT DEVICES   [Option: ORB3 DEFAULT DEVICE RECIPIENTS]

This parameter sets devices as default recipients of a notification, regardless of patient. A value of "Yes" indicates the device always receives the notification when it is triggered. Example devices include printers, terminals, and files.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestions:

- Set a file to receive every instance of a notification useful in meeting JCAHO requirements.

- Troubleshoot notification occurrences by sending them to a printer or a file.

- Set a file to receive every instance of a notification for research purposes. Later parse the file removing key data for use in a spreadsheet or research database.

ORB DEFAULT RECIPIENTS   [Option: ORB3 DEFAULT RECIPIENTS]

This parameter sets teams and/or users as default recipients of a notification, regardless of patient. A value of "Yes" indicates the team/user always receives the notification when it is triggered – despite values in the ORB PROCESSING FLAG parameter.

ENTITY PRECEDENCE: 1   ENTITY TYPE: User

ENTITY PRECEDENCE: 2   ENTITY TYPE: Team (OE/RR)

Customization Suggestions:

- Set up a dietician team to receive all instances of the Food/Drug Interaction alert by using this parameter to set that team as a "Default Recipient" for the Food/Drug Interaction notification. [Note: Do not add patients to these teams. If patients exist on these teams, the dieticians will also receive alerts for notifications with an ORB PROVIDER RECIPIENT value containing "T". To prevent dieticians on this team from receiving unwanted alerts, set the team's ORB PROCESSING FLAG parameter values to Disabled for all Mandatory notifications. (With patch OR*3*74, Disabled Team values take precedence over Mandatory values at all entity levels except User.)]

- Set up a QA team to receive all instances of a notification.

ORB DELETE MECHANISM   [Option: ORB3 DELETE MECHANISM]

This parameter determines how alerts are deleted when a successful alert follow-up action is taken or a user views an "Information Only" alert. It is a set of codes including:

I (Individual Recipient): delete the notification for an individual recipient when:

a   That individual completes the follow-up action on notifications with associated follow-up action,

b   That individual reviews notifications without follow-up actions.

    A (All Recipients): delete the notification for all recipients when:

a   Any recipient completes the follow-up action on notifications with follow-up actions.

b   Any recipient reviews notifications without follow-up actions.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

ORB FLAGGED ORDERS BULLETIN   [Option: ORB3 FLAGGED ORDERS BULLETIN]

This parameter is used to determine if a bulletin should be sent when an order is "flagged for clarification." A "Yes" indicates a MailMan bulletin is sent to the order's Current Provider (usually the Ordering Provider) when the order is flagged. This option has no effect on the Flagged Order for Clarification notification that is also triggered when an order is flagged for clarification.

ENTITY PRECEDENCE: 1   ENTITY TYPE: User

ENTITY PRECEDENCE: 2   ENTITY TYPE: Service

ENTITY PRECEDENCE: 3   ENTITY TYPE: Division

ENTITY PRECEDENCE: 4   ENTITY TYPE: System

Customization Suggestion:

• If you have a service that prefers bulletins over notifications/alerts when an order is flagged, set this parameter to "Yes" for the service and "Disable" the notification "Flagged Order for Clarification" for the service via the ORB PROCESSING FLAG parameter. Furthermore, if you have a user within that service who prefers notifications/alerts over bulletins when an order is flagged, set this parameter to "No" for the user and set the user's processing flag value for the notification "Flagged Order for Clarification" to be "Mandatory."

ORB FORWARD SUPERVISOR   [Option: ORB3 FORWARD SUPERVISOR]

This parameter indicates how many days to hold an unprocessed alert before forwarding it to the user's supervisor. The maximum is 30 days. If not indicated or zero, the notification is never forwarded. For example, if a notification has a value of "14" for this parameter, it is forwarded to the supervisor of each recipient who hasn't processed the notification within 14 days. Determination of recipients who have not processed the notification and their supervisors is made by the Kernel Alert Utility. For this purpose, Kernel Alerts recognizes the user's service/section chief as supervisor.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

ORB FORWARD SURROGATES   [Option: ORB3 FORWARD SURROGATES]

This parameter indicates how many days to hold an unprocessed alert before forwarding it to the user's Mailman surrogates. The maximum is 30 days. If not indicated or zero, the notification is never forwarded. For example, if a notification has a value of 14 for this parameter, it is forwarded to the Mailman surrogates of each recipient who hasn't processed the notification within 14 days. Determination of recipients who have not processed the notification and their surrogates is made by the Kernel Alert Utility.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

ORB LAST QUEUE DATE   [Option: No user interaction]

This parameter indicates the last date/time the Taskman-driven notifications were triggered.

ENTITY PRECEDENCE: 1   ENTITY TYPE: System

Customization Suggestion:

- Do not modify this parameter unless you desire an unrelenting hail of expiring order alerts and riotous user behavior.

ORB OI EXPIRING - INPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

> This parameter is used to trigger the FLAGGED OI EXPIRING - INPT notification/alert when a specific orderable item is expiring for an inpatient. For the notification to be triggered, the orderable item selected via this parameter must match the order's orderable item and the patient must be an inpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL inpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1   ENTITY TYPE: User

ENTITY PRECEDENCE: 2   ENTITY TYPE: Team (OE/RR)

ENTITY PRECEDENCE: 3   ENTITY TYPE: Device

Customization Suggestions:

- Flag orderable items for restraints/protective devices that need to be renewed every 24 hours.

- Flag orderable items of importance to JCAHO.

- Flag orderable items for telemetry orders.

- Send an alert to a printer whenever a particular orderable item is ordered.

ORB OI EXPIRING - OUTPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

> This parameter is used to trigger the FLAGGED OI EXPIRING - OUTPT notification/alert when a specific orderable item is expiring for an outpatient. For the notification to be triggered, the orderable item selected via this parameter must match the order's orderable item and the patient must be an outpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL inpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on

that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Device

Customization Suggestions:

- Flag orderable items for HBHC orders.

- Flag orderable items of importance to JCAHO.

- Send an alert to a printer whenever a particular orderable item is ordered.

ORB OI ORDERED - INPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

This parameter identifies or "flags" an orderable item to trigger the FLAGGED OI ORDER - INPT notification/alert when the orderable item is ordered for an inpatient. For the notification to be triggered, the orderable item selected via this parameter must match the order's orderable item and the patient must be an inpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL inpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Device

Customization Suggestions:

- If an infection control officer wants to receive an alert any time a special antibiotic is ordered, identify that user as the entity, then select the antibiotic's orderable item. (The orderable item must be linked with applicable order dialogs.)

- Alert the chief of radiology whenever a particularly expensive imaging procedure is ordered.

- Alert a QA team whenever special lab tests are ordered.

- Send an alert to a printer whenever a particular orderable item is ordered.

ORB OI ORDERED - OUTPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

This parameter identifies or "flags" an orderable item to trigger the FLAGGED OI ORDER - OUTPT notification/alert when the orderable item is ordered for an outpatient. For the notification to be triggered, the orderable item selected via this parameter must match the order's orderable item and patient must be an outpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL outpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Device

Customization Suggestions:

- Alert a clinician whenever a particular orderable item is ordered for patients on his team.

- Send an alert to a printer whenever a particular orderable item is ordered.

ORB OI RESULTS - INPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

This parameter identifies or "flags" an orderable item to trigger the FLAGGED OI RESULTS - INPT notification/alert when a related order is resulted for an inpatient. This only works for results-based orderable items (Lab, Imaging, and Consults.) For the notification to be triggered, the orderable item selected via this parameter must match the related order's orderable item and the patient must be an inpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL outpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Device

Customization Suggestions:

- If an infection control officer wants to receive an alert any time a particular lab procedure is resulted, identify that user as the entity then select the procedure's orderable item. (The orderable item must be linked with applicable order dialogs.)

- Send an alert to a file whenever a particular orderable item is resulted.

ORB OI RESULTS - OUTPT   [Option: ORB3 FLAG ORDERABLE ITEMS]

This parameter identifies or "flags" an orderable item to trigger the FLAGGED OI RESULTS - OUTPT notification/alert when a related order is resulted for an outpatient. This only works for results-based orderable items (Lab, Imaging, and Consults.) For the notification to be triggered, the orderable item selected via this parameter must match the related order's orderable item and the patient must be an outpatient. Orders are linked to orderable items through the order dialog setup. OE/RR Teams, individual users or devices can be set up to receive the alert for one or more orderable items by selecting the desired team, user or device via this parameter. If the value for the orderable item flag is "YES", the entity (user, team, device), flagging the orderable item becomes a potential alert recipient for ALL outpatients. (If a device is added to the potential recipient list, it will always receive the alert.) If the value is "NO", the entity (user, team, device), flagging the orderable item only becomes a potential alert recipient if that entity is "linked" to the patient. Users are linked to a patient if the user is the patient's attending physician, primary inpatient provider or share an OE/RR team with the patient. Teams are linked to a patient if the patient is on the team. (If a patient is on a team that has flagged an orderable item, all users on that team become potential alert recipients.) Devices (printers, etc.) are linked to a patient if the device and patient are on the same OE/RR team.

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Device

Customization Suggestions:

- Alert a clinician whenever a particular orderable item is resulted for patients on his team.

- Send an alert to a file whenever a particular orderable item is resulted.

ORB PROCESSING FLAG   [Option: ORB3 PROCESSING FLAG]

This parameter determines notification/alert recipients. It replaces the Notifications file Processing Flag field. Whereas the field contained the set of codes "D"isabled, "E"nabled, "M"andatory, and "N"avigation, the parameter contains "E"nabled, "D"isabled and "M"andatory. Unlike most parameters, ORB PROCESSING FLAG is not used to determine an overall value based on Entity Precedence. Instead, a Notifications algorithm obtains the ORB PROCESSING FLAG value for all entity levels when determining alert recipients. (Refer to Notifications documents for a detailed explanation of this process.) [Note: if a team's or user's ORB DEFAULT RECIPIENTS parameter value for a notification is ''True," that Team or User will always receive that notification/alert, regardless of any ORB PROCESSING FLAG value. This is also true for devices identified via the ORB DEFAULT RECIPIENT DEVICES parameter.]

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Team (OE/RR)
ENTITY PRECEDENCE: 3	ENTITY TYPE: Service

ENTITY PRECEDENCE: 4   ENTITY TYPE: Location

ENTITY PRECEDENCE: 5   ENTITY TYPE: Division

ENTITY PRECEDENCE: 6   ENTITY TYPE: System

Customization Suggestions:

- Disable Critical Lab Result alerts for ICU patients by setting the ICU (Location entity), value of this parameter to "Disabled" for the Critical Lab Results notifications. (For this parameter, Location entity values take precedence over Division and System entity values, even if those values are "Mandatory.") If a critical lab result now occurs for a patient in ICU, the alert will not be triggered. Critical Lab Result alerts continue to be possible for patients in other locations.

- To send only one particular notification/alert (and no others) to an OE/RR team, set the team's parameter value to Mandatory for that notification and all set other team notification parameter values to Disabled. If a user on the team wants to receive additional notifications/alerts, the user can set his parameter value to Enabled or Mandatory for each desired notification.

ORB PROVIDER RECIPIENTS   [Option: ORB3 PROVIDER RECIPIENTS]

This parameter determines if the ordering provider, attending physician, primary provider, or patient-related teams are considered for potential alert recipients. This parameter replaces the Recipient Restrictions, Exclude Attending and Exclude Primary fields in the Notifications file and the Notification to Physician field in the Order Parameter file. The value for this parameter can be any one or combination of the codes listed below. These codes indicate a site's preferred notification recipients by the user title or relationship to the patient. The codes include:

P (Primary Provider):   deliver notification to the patient's (inpatient) Primary Provider.

A (Attending Physician):   deliver notification to the patient's Attending Physician.

T (Patient Care Teams):   deliver notification to the patient's OE/RR Teams (personal patient and team lists are evaluated for potential recipients.)

O (Ordering Provider): deliver notification to the provider who placed/requested the order (if the notification is order-based.)

[Note: The providers, physicians, and teams must be set up properly and accurately for correct recipient determination.]

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- Create teams for inpatient nurses and/or clerks to receive an alert when new orders are placed on patients in their ward. When creating the team, set up an autolink to the desired ward(s). This will automatically add and remove patients to the team when they are admitted, transferred or discharged. Next, set this parameter to "T" for the New Order notification to indicate the alert should only go to teams. (Most attendings, primary providers, and ordering providers will not want to receive an alert every time one of their patients has a new order placed.) [Please remember a "T" indicates all team and personal lists that include the patient will be evaluated for potential alert recipients.] Next, use the parameter ORB PROCESSING FLAG to set the value for the New Order notification to "Disabled" for your System or Division. (Disabling the notification for the System/Division will prevent most teams, personal lists and users from receiving the alert.) Finally, use the ORB

PROCESSING FLAG parameter to set the New Order notification value to "Mandatory" or "Enabled" for the teams you created. (A setting of "Enabled" will allow users on the team to disable the notification/alert if desired whereas "Mandatory" will send the alert to all users on that team.)

ORB SORT METHOD   [Option: ORB3 SORT METHOD]

This parameter determines how notifications are sorted in the GUI display. Possibilities include:

P:Patient: sort by patient name.

T:Type: sort by notification type (Name field in file 100.9.)

U:Urgency: sort by notification's value in the ORB URGENCY parameter.

Within these sort methods notifications are presented in reverse chronological order.

        ENTITY PRECEDENCE: 1   ENTITY TYPE: User

        ENTITY PRECEDENCE: 2   ENTITY TYPE: Division

        ENTITY PRECEDENCE: 3   ENTITY TYPE: System

ORB SURROGATE RECIPIENT   [Option: ORB3 SURROGATE RECIPIENT]

This parameter identifies a surrogate to receive all notifications (OE/RR alerts), for a user. This does not apply to all alerts. Only those alerts triggered by OE/RR are affected. Therefore it does not affect TIU-based alerts such as Discharge Summary and Progress Notes. If the alert is not on the CPRS notification list, it will not be sent to the surrogate. When processing notifications for a surrogate, the parameter values of the original recipient (user) are used. This allows the surrogate to get alerts based on the original recipient's parameter values without having to change their own setup. For example, Dr Alpha has Abnormal Lab Results "Enabled" and Dr Beta has Abnormal Lab Results "Disabled." If Dr Beta is set up as the surrogate notification recipient for Dr Alpha, Dr Beta will get Abnormal Lab Results alerts for Dr Alpha's patients - even though Dr Beta has the alert disabled. (Yet Dr Beta will not receive Abnormal Lab Results for his patients.) In addition, if the original recipient is set up as a Default Recipient, the alert is sent to both the original recipient and the surrogate. And, when a user is identified as a surrogate, they get a bulletin indicating their new designation. When that user is removed as a surrogate, they get another bulletin.

        ENTITY PRECEDENCE: 1   ENTITY TYPE: User

Special Note: Do not use this parameter – it has been replaced by the Kernel Alert option XQALERT SURROGATE SET/REMOVE.

ORB SYSTEM ENABLE/DISABLE   [Option: ORB3 SYSTEM ENABLE/DISABLE]

This parameter determines if any CPRS Notification processing will occur. In effect, it enables or disables all notification processing.

        ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

        ENTITY PRECEDENCE: 2   ENTITY TYPE: System

[Note: this parameter disables all types of notifications. Additional functionality exists in the CPRS Expert System to inactivate specific rule-based notifications.]

ORB URGENCY   [Option: ORB3 URGENCY]

The ORB URGENCY parameter is used in the GUI display. If an entity's ORB SORT METHOD parameter value is set to "Urgency," notifications displayed in the GUI are sorted by their value in this parameter. Possible values include:

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1:High: display these notifications at the top of the GUI alert list.

2:Moderate: display these notifications in the middle of the GUI alert list.

3:Low: display these notifications at the bottom of the GUI alert list.

ENTITY PRECEDENCE: 1   ENTITY TYPE: User

ENTITY PRECEDENCE: 2   ENTITY TYPE: Service

ENTITY PRECEDENCE: 3   ENTITY TYPE: Division

ENTITY PRECEDENCE: 4   ENTITY TYPE: System

ORBC CONVERSION   [Option: No user interaction]

This parameter indicates whether or not the notification conversion from OE/RR 2.5 has occurred. It prevents overwriting of existing parameter values if CPRS must be installed multiple times.

ENTITY PRECEDENCE: 1   ENTITY TYPE: System

Special Note: Do not modify this parameter – unless, of course, you desire a maelstrom of user discontent.

Option –> Parameter Mapping

Option	**Parameter**
CPRS Manager Menu	
PE CPRS Configuration (Clin Coord) ...	
NO Notification Mgmt Menu ...	
1 Enable/Disable Notifications	ORB PROCESSING FLAG
2 Erase Notifications	
3 Set Urgency for Notifications (GUI)	ORB URGENCY
4 Set Deletion Parameters for Notifications	ORB DELETE MECHANISM
5 Set Default Recipient(s) for Notifications	ORB DEFAULT RECIPIENTS
6 Set Default Recipient Device(s) for Notifications	ORB DEFAULT RECIPIENT DEVICES
7 Set Provider Recipients for Notifications	ORB PROVIDER RECIPIENTS
8 Flag Orderable Item(s) to Send Notifications	
1. Flag INPATIENT orders/results/expiring orders.	
a. Flag Inpatient ORDERS.	ORB OI ORDERED – INPT
b. Flag Inpatient RESULTS.	ORB OI RESULTS – INPT
c. Flag Inpatient EXPIRING orders.	ORB OI EXPIRING – INPT
2. Flag OUTPATIENT orders/results/expiring orders.	
a. Flag Outpatient ORDERS.	ORB OI ORDERED – OUTPT
b. Flag Outpatient RESULTS.	ORB OI RESULTS – OUTPT
c. Flag Outpatient EXPIRING orders.	ORB OI EXPIRING – OUTPT

| 9 | Archive(delete) after \<x\> Days | ORB ARCHIVE PERIOD |
| 10 | Forward Notifications... | |

ORB FORWARD SUPERVISOR

Forward Unprocessed Notification to Supervisor

ORB FORWARD SURROGATES

Forward Unprocessed Notification to Surrogates

| 11 | Set Delays for Unverified Orders... | |

UNVERIFIED ORDER

Set Delay for All Unverified OrdersORB

Set Delay for Unverified Medication Orders

ORB UNVERIFIED MED ORDER

| 12 | Set Notification Display Sort Method (GUI) | ORB SORT METHOD |
| 13 | Send Flagged Orders Bulletin | ORB FLAGGED ORDERS |

BULLETIN

14	Determine Recipients for a Notification	
15	Display Patient Alerts and Alert Recipients	
16	Enable or Disable Notification System	ORB SYSTEM ENABLE/DISABLE
17	Display the Notifications a User Can Receive	
18	Set Surrogate Notification Recipient for a User	ORB SURROGATE RECIPIENT

PP Personal Preferences

NO   Notification Mgmt Menu ...

1   Enable/Disable My Notifications   ORB PROCESSING FLAG

2   Erase All of My Notifications

3   Set Notification Display Sort Method (GUI)   ORB SORT METHOD

4   Send me a MailMan bulletin for Flagged Orders ORB FLAGGED ORDERS

BULLETIN

5   Show Me the Notifications I Can Receive

6   Set Surrogate to Receive My Notifications   ORB SURROGATE RECIPIENT

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Appendix C: Order Check Parameters in CPRS 1 - Technical Overview

Introduction

CPRS Order Checks use the Parameter file [#8989.5] to export values for parameters that determine how order checks are processed. All of these parameters are new in CPRS. When each parameter is defined and set up via the Parameter Definition file [#8989.51], a set of entity relationships is established. Most CPRS Order Check parameters were set up with links to the "Package" entity in order to export default values with CPRS. Hence, the exported order checking "defaults" are parameter values for package entity "Order Entry/Results Reporting." Order Check parameter values for package entities (Order Entry/Results Reporting) should never be modified. Changes specific to your site can be made for system, division, and other entities, depending on how each parameter is defined. (Refer to CPRS Install documents for a listing of exported default values.)

Note: Some parameters have a "Location" entity type. Only inpatient location entities are used. Outpatient location entities are ignored because a patient's outpatient location cannot be reliably determined and a patient can have several simultaneous outpatient locations.

Parameters

ORK CLINICAL DANGER LEVEL   [Option: ORK CLINICAL DANGER LEVEL]

This parameter indicates an order check's potential clinical danger to the patient. Potential values are a set of codes:

1 (High):   Order check indicates a potentially high danger to the patient.

2 (Moderate):   Order check indicates a moderate danger to the patient.

3 (Low):   Order check indicates a low danger to the patient.

A 'High' value indicates the order checking dialog will ask for an override reason. (The provider entering the order is prompted for an override reason if they ignore a "High" clinical danger order check and continue placing the order.)

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- CPRS exports the Duplicate Drug Order order check with a "High" clinical danger level. This indicates duplicate medication orders do display an order check message, then prompt users for

an override reason. To prevent the override prompt, set the Clinical Danger Level for this order check to "Moderate." Providers get the order check message, but are not be prompted for an override reason.

ORK CT LIMIT HT   [Option: ORK CT LIMIT HT]

This parameter is used by order checking to determine if a patient is too tall to be examined by the CT scanner. The value indicates the maximum height (in inches) allowed.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- For systems with CT scanners at more than one division, set the value of this parameter at the division level to correspond to that division's scanner height limit.

ORK CT LIMIT WT   [Option: ORK CT LIMIT WT]

This parameter is used by order checking to determine if a patient weighs too much to be safely examined by the CT scanner. The value indicates the maximum weight (in pounds) allowed.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- For systems with CT scanners at more than one division, set the value of this parameter at the division level to correspond to that division's scanner weight limit.

ORK DEBUG ENABLE/DISABLE   [Option: ORK DEBUG ENABLE/DISABLE]

This parameter determines if order checking logs debug messages into ^XTMP("ORKLOG".) The possible values are a set of codes:

E (Enabled):   Indicates the Order Checking debug log is activated.

D (Disabled):   Indicates the Order Checking debug log is inactivated and deleted.

Information passed to order checking from OE/RR is stored in the zero node. The zero node is in the format:

```
^XTMP("ORKLOG",<order check date/time>,<pt id>,<orderable item>,<dlog mode>,
<user id>,0)= <orderable item>|<filler>|<natl id^natl text^natl sys^local
id^local text^ local sys>|<order effective date/time>|<order number>|<filler
data>|.
```

The data for non-zero node entries is the information passed from order checking back to OE/RR. It is the order check messages plus other info to enhance OE/RR processing. It is in the format:

```
^XTMP("ORKLOG",<order check date/time>,<pt id>,<orderable item>,<dlog mode>,
<user id>,<non-zero>)= <order number>^<order check id - 864.5 ien>^<clin
danger level>^<message>
```

This parameter is used primarily for troubleshooting. Under normal circumstances it should be "Disabled." When this debug global exceeds 5,000 entries, it is killed and begins adding new entries.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- To determine if a particular type of order check is occurring, set this parameter to be "Enabled" and check the debug log global periodically.

ORK DUP ORDER RANGE LAB   [Option: ORK DUP ORDER RANGE LAB]

This parameter indicates how many hours back in time to look for duplicate lab orders. If a similar lab order has been placed within the number of hours indicated in this parameter, an order check message is displayed. Lab orders with an OE/RR order status of "Canceled," "Discontinued," "Expired," "Lapsed," "Discontinued/Edit," or "Delayed" are not evaluated when looking for duplicates. [Note: This parameter is superseded if the ordered lab procedure has a corresponding orderable item entered in the ORK DUP ORDER RANGE OI parameter.]

ENTITY PRECEDENCE: 1   ENTITY TYPE: Location

ENTITY PRECEDENCE: 2   ENTITY TYPE: Service

ENTITY PRECEDENCE: 3   ENTITY TYPE: Division

ENTITY PRECEDENCE: 4   ENTITY TYPE: System

Customization Suggestion:

- Use this parameter to set a duplicate order value for the majority of lab procedures, then use ORK DUP ORDER RANGE OI to set duplicate order values for lab procedures with special duplicate order ranges. (Refer to ORK DUP ORDER RANGE OI customization suggestions for an example.)

ORK DUP ORDER RANGE OI   [Option: ORK DUP ORDER RANGE OI]

This parameter indicates how many hours back in time to look for duplicate orders with a matching orderable item. If an order with the same orderable item has been placed within the number of hours indicated in this parameter, an order check message is displayed. For the order check to occur, the orderable item selected via this parameter must match both the orderable item of the order being placed and the duplicate order's orderable item. Orders are linked to orderable items through the order dialog setup. Use this parameter to set duplicate order search ranges for special orderable items. This parameter does not affect medication duplicate order ranges. Medication order duplicates are determined within the Pharmacy package. A value of "0" (zero) indicates duplicate order checking for this orderable item does not occur. [Note: If the orderable item of the order being placed has a value in this parameter, this parameter's value supersedes values entered in the ORK DUP ORDER RANGE LAB/RADIOLOGY parameters.]

ENTITY PRECEDENCE: 1   ENTITY TYPE: Location

ENTITY PRECEDENCE: 2   ENTITY TYPE: Service

ENTITY PRECEDENCE: 3   ENTITY TYPE: Division

ENTITY PRECEDENCE: 4   ENTITY TYPE: System

Customization Suggestions:

- Use the ORK DUP ORDER RANGE LAB parameter to set a duplicate order value for the majority of lab procedures, then use ORK DUP ORDER RANGE OI to set duplicate order values for lab tests with special duplicate order ranges. For example, the exported default value for ORK DUP ORDER RANGE LAB is "48" hours. Use ORK DUP ORDER RANGE LAB to change that value to "24" hours for your System entity. Next, use ORK DUP ORDER RANGE OI at your System entity level to set the duplicate order range for the CBC orderable item to "12" hours. The order check message indicating a duplicate CBC order will now occur if the patient has a previous CBC order within the past 12 hours. [Note: The order being placed and the duplicate order must each have an orderable item that matches the CBC orderable item entered via this parameter.] The order check for CBC will not occur if the patient's most recent CBC order occurred 13 hours previously. However, if the order is for a different lab test (and no parameter value for that test exists), the order check message will occur if the patient's most recent lab test was within the past 24 hours.

- In addition to the suggestion above, set the ICU (Location entity), value of ORK DUP ORDER RANGE OI to "3" hours for orderable item CBC. Now, if the CBC order is for a patient in ICU, the order check occurs only if the most recent order is within the past three hours. CBC orders older than three hours do not trigger the order check for patients in ICU. For non-ICU patients the duplicate range value remains "12" hours.

- To prevent duplicate order checks on generic nursing orders placed by General Medicine providers (Service entity), use this parameter to set General Medicine's value of the generic nursing orderable item to "0" (zero.) Remember, the generic nursing orderable item identified in the parameter must match the orderable item of the order dialog used to place generic nursing orders.

ORK DUP ORDER RANGE RADIOLOGY   [Option: ORK DUP ORDER RANGE RADIOLOGY]

This parameter indicates how many hours back in time to look for duplicate imaging orders. If a similar imaging procedure has been placed within the number of hours indicated in this parameter, an order check message is displayed. Imaging orders with an OE/RR order status of "Canceled," "Discontinued," "Expired," "Lapsed," "Discontinued/Edit," or "Delayed" are not evaluated when looking for duplicates. [Note: This parameter is superseded if the ordered imaging procedure has a corresponding orderable item entered in the ORK DUP ORDER RANGE OI parameter.]

ENTITY PRECEDENCE: 1   ENTITY TYPE: Location

ENTITY PRECEDENCE: 2   ENTITY TYPE: Service

ENTITY PRECEDENCE: 3   ENTITY TYPE: Division

ENTITY PRECEDENCE: 4   ENTITY TYPE: System

Customization Suggestion:

- Use this parameter to set a duplicate order value for the majority of imaging procedures then use ORK DUP ORDER RANGE OI to set duplicate order values for imaging procedures with special duplicate order ranges. (Refer to ORK DUP ORDER RANGE OI customization suggestions for a similar example with lab procedures.)

ORK MRI LIMIT HT   [Option: ORK MRI LIMIT HT]

This parameter is used by order checking to determine if a patient is too tall to be examined in the MRI scanner. The value indicates the maximum height (in inches) allowed.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- For systems with MRI scanners at more than one division, set the value of this parameter at the division level to correspond to that division's scanner height limit.

ORK MRI LIMIT WT   [Option: ORK MRI LIMIT WT]

This parameter is used by order checking to determine if a patient weighs too much to be safely examined by the MRI scanner. The value indicates the maximum weight (in pounds) allowed.

ENTITY PRECEDENCE: 1   ENTITY TYPE: Division

ENTITY PRECEDENCE: 2   ENTITY TYPE: System

Customization Suggestion:

- For systems with MRI scanners at more than one division, set the value of this parameter at the division level to correspond to that division's scanner weight limit.

ORK PROCESSING FLAG   [Option: ORK PROCESSING FLAG]

This parameter determines if an order check will be processed. Potential values are a set of codes:

E (Enabled):   Order check enabled for the entity unless an entity of higher precedence has the order check disabled (e.g. Enabled at System level and Disabled at User level— order check will not be processed for that user.)

D (Disabled):   Order check disabled for entity unless entity of higher precedence has order check Enabled (e.g. Disabled at System level and Enabled at User level—order check will be processed for that user.)

ENTITY PRECEDENCE: 1   ENTITY TYPE: User

ENTITY PRECEDENCE: 2   ENTITY TYPE: Location

ENTITY PRECEDENCE: 3   ENTITY TYPE: Service

ENTITY PRECEDENCE: 4   ENTITY TYPE: Division

ENTITY PRECEDENCE: 5   ENTITY TYPE: System

Customization Suggestion:

- Disable polypharmacy order checking for ICU patients by setting the ICU (Location entity), value of this parameter to "Disabled" for the Polypharmacy order check. Polypharmacy order checks continue to be possible for patients in other locations.

    ORK SYSTEM ENABLE/DISABLE   [Option: ORK SYSTEM ENABLE/DISABLE]

    This parameter determines if any CPRS Order Check processing will occur. In effect, it enables or disables all order check processing.

E (Enabled):   Order checking is enabled and running.

D (Disabled):   Order checking is disabled and not running.

    [Note: this parameter disables all types of order checks. Additional functionality exists in the CPRS Expert System to inactivate specific rule-based order checks.]

ENTITY PRECEDENCE: 1	ENTITY TYPE: User
ENTITY PRECEDENCE: 2	ENTITY TYPE: Location
ENTITY PRECEDENCE: 3	ENTITY TYPE: Service
ENTITY PRECEDENCE: 4	ENTITY TYPE: Division
ENTITY PRECEDENCE: 5	ENTITY TYPE: System

Option –> Parameter Mapping

Option   **Parameter**

CPRS Manager Menu

    PE   CPRS Configuration (Clinical Coordinator) ...

        OC   Order Checking Mgmt Menu ...

        1   Enable/Disable an Order Check   ORK PROCESSING FLAG

        2   Set Clinical Danger Level for an Order Check   ORK CLINICAL DANGER LEVEL

        3   CT Scanner Height Limit   ORK CT LIMIT HT

        4   CT Scanner Weight Limit   ORK CT LIMIT WT

        5   MRI Scanner Height Limit   ORK MRI LIMIT HT

        6   MRI Scanner Weight Limit   ORK MRI LIMIT WT

        7   Orderable Item Duplicate Order Range   ORK DUP ORDER RANGE OI

        8   Lab Duplicate Order Range   ORK DUP ORDER RANGE LAB

        9   Radiology Duplicate Order Range   ORK DUP ORDER RANGE

    RADIOLOGY

        10   Enable or Disable Order Checking System   ORK SYSTEM ENABLE/DISABLE

        11   Enable or Disable Debug Message Logging   ORK DEBUG ENABLE/DISABLE

        12   Display the Order Checks a User Can Receive

        13   Edit Site Local Terms

PP Personal Preferences

    OC   Order Checking Mgmt Menu ...

        1   Enable/Disable My Order Checks   ORK PROCESSING FLAG

        2   Show Me the Order Checks I Can Receive

Appendix D: CPRS Parameters vs. OE/RR Parameters: File Locations

Old Location	Old Name	New Location	New Name	Edit Thru Option
200/100.11	Primary OE/RR Menu	No longer used		
200/100.12	Primary Order Menu	8989.51	OR ADD ORDERS MENU	[OR PARAM ADD MENU] Assing Primary Order Menu
		8989.51	OR ORDER REVIEW DT	**No user interaction**
		8989.51	OR PRINT NO ORDERS ON SUM	[OR PARAM SUMMARY REPORTS] Summary Report Parameters
		8989.51	OR SIGNED ON CHART	[OR PARAM ORDER MISC] Miscellaneous Parameters
200/100.13	Primary Order Display Format	No longer used		
200/100.14	Ward List	8989.51	ORLP DEFAULT WARD	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.15	Patient List	No longer used		
200/100.16	Select Patient From	8989.51	ORLP DEFAULT LIST SOURCE	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.17	Clinic List	8989.51	ORLP DEFAULT CLINIC MONDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC TUESDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC WEDNESDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC THURSDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC FRIDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC SATURDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT CLINIC SUNDAY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.18	Clinic Appointment Start Date	8989.51	ORLP DEFAULT CLINIC START DATE	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.19	Clinic Appointment Stop Date	8989.51	ORLP DEFAULT CLINIC STOP DATE	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
		8989.51	ORLP DEFAULT TEAM	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.21	Summary Default	No longer used		
200/100.22	Patient List Order	8989.51	ORLP DEFAULT LIST ORDER	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.23	Default Result Reporting Menu	No longer used		

200/100.24	Primary Profile Menu	No longer used		
200/100.25	Provider List	8989.51	ORLP DEFAULT PROVIDER	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.26	Specialty List	8989.51	ORLP DEFAULT SPECIALTY	[ORLPSU DEFAULT USER MENU] Patient Selection Preference Menu
200/100.27	New Orders Default	No longer used		
79/.121	Ask Imaging Loacation	8989.51	RA SUBMIT PROMPT	[RA SYSDIV] Division Parameter Set-up/Division-wide Order Entry par
79/.17	Detailed Procdeure Required	8989.51	RA REQUIRE DETAILED	[RA SYSDIV] Division Parameter Set-up/Exam Entry/Edit Parameters

Old Location	Old Name	New Location	New Name	Edit Thru Option
69.9/9 Hospital Site/1	Max Days for continuous orders	8989.51	LR MAX DAY CONTINUOUS	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
69.9/9 Hospital Site/2	Cancel on Ward transfer	No longer used		
69.9/9 Hospital Site/3	Cancel on Service transfer	69.9/150.5	CANCEL ON SPECIALTY TRANSFER	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
		69.9/150.1	DEFAULT NATURE OF ORDER	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
		69.9/150.2	DEFAULT DC REASON	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
		69.9/150.3	CANCEL ON ADMIT	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
		69.9/150.4	CANCEL ON DISCHARGE	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
69.9/9 Hospital Site/4	Ask Urgency	8989.51	LR ASK URGENCY	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
69.9/9 Hospital Site/5	Default for Quick Orders	8989.51	LR DEFAULT TYPE QUICK	[LRXOSX1] Edit HOSPITAL SITE PARAMETERS
69.9/400	Phlebotomy Order Cut-off Time	8989.51	LR PHLEBOTOMY COLLECTION	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/500	Collect Thursday orders in	8989.51	LR COLLECT THURSDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/501	Collect Fridays orders in	8989.51	LR COLLECT FRIDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/506	Collect Wednesdays orders in	8989.51	LR COLLECT WEDNESDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/505	Collect Tuesdays orders in	8989.51	LR COLLECT TUESDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/504	Collect Mondays orders in	8989.51	LR COLLECT MONDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/503	Collect Sundays orders in	8989.51	LR COLLECT SUNDY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/502	Collect Saturdays orders in	8989.51	LR COLLECT SATURDAY	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/509	Excepted Locations	8989.51	LR EXCEPTED LOCATIONS	Fileman Edit of file 69.9 then use Lab/OERR Update option
69.9/507	Ignore Holidays	8989.51	LR IGNORE HOLIDAYS	Fileman Edit of file 69.9 then use Lab/OERR Update option

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	8989.51	ORB ARCHIVE PERIOD	[ORB NOT COORD MENU] Notification Mgmt Menu
	8989.51	ORB DELETE MECHANISM	[ORB NOT COORD MENU] Notification Mgmt Menu
	8989.51	ORB FORWARD SUPERVISOR	[ORB NOT COORD MENU] Notification Mgmt Menu
	8989.51	ORB FORWARD SURROGATES	[ORB NOT COORD MENU] Notification Mgmt Menu
	8989.51	ORB ORDERABLE ITEM ORDERED	[ORB NOT COORD MENU] Notification Mgmt Menu
	8989.51	ORB ORDERABLE ITEM RESULTS	[ORB NOT COORD MENU] Notification Mgmt Menu

Old Location	Old Name	New Location	New Name	Edit Thru Option
		8989.51	ORB PROCESSING FLAG	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB PROVIDER RECIPIENTS	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB URGENCY	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB SORT METHOD	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB FLAGGED ORDERS BULLETIN	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB DEFAULT RECIPIENTS	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB DEFAULT RECIPIENT DEVICES	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB STSTEM ENABLE/DISABLE	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB SURROGATE RECIPIENT	[ORB NOT COORD MENU] Notification Mgmt Menu
		8989.51	ORB LAST QUEUE DATE	**No user interaction** / [OR PARAM IRM MENU]
		8989.51	ORBC CONVERSION	**No user interaction** / [OR PARAM IRM MENU]
		8989.51	ORCH CONTEXT CONSULTS	Consults Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT INPT LABS	Lab Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT INPT MEDS	Meds Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT NOTES	Notes Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT ORDERS	Orders Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT OUTPT LABS	Lab Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT OUTPT MEDS	Meds Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT PROBLEMS	Problem Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT REPORTS	Reports Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT SUMMRIES	D/C Summaries Tab - CV - Select Sort - Save
		8989.51	ORCH CONTEXT XRAYS	Imaging Tab - CV - Select Sort - Save
		8989.51	ORLPC CONVERSION	**No user interaction** / [OR PARAM IRM MENU]
		8989.51	ORQQLR DATE RANGE INPT	GUI Cover Sheet User Display Parameters
		8989.51	ORQQLR DATE RANGE OUTPT	GUI Cover Sheet User Display Parameters
		8989.51	ORQQRA SEARCH RANGE	

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	8989.51	ORQQPX SEARCH ITEMS	GUI Cover Sheet User Display Parameters
	8989.51	ORQQAP SEARCH RANGE START	GUI Cover Sheet User Display Parameters
	8989.51	ORQQAP SEARCH RANGE STOP	GUI Cover Sheet User Display Parameters
	8989.51	ORQQVS SEARCH RANGE START	GUI Cover Sheet User Display Parameters
	8989.51	ORQQVS SEARCH RANGE STOP	GUI Cover Sheet User Display Parameters
	8989.51	ORQQCN DATE RANGE	GUI Cover Sheet User Display Parameters

Old Location	Old Name	New Location	New Name	Edit Thru Option
		8989.51	ORK CLINICAL DANGER LEVEL	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK PROCESSING FLAG	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK DUP ORDER RANGE OI	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK SYSTEM ENABLE/DISABLE	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK CT LIMIT WT	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK CT LIMIT HT	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK MRI LIMIT WT	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK MRI LIMIT HT	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK DUP ORDER RANGE LAB	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK DUP ORDER RANGE RADIOLOGY	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
		8989.51	ORK DEBUG ENABLE/DISABLE	[ORK ORDER CHECK MGMT MENU] Order Checking Mgmt Menu
100.99/5/3	Setup Action	No longer used		
		8989.51	ORPF LAST PURGE DATE	**No user interaction / [OR PARAM IRM MENU]**
		8989.51	ORPF LAST ORDER PURGED	**No user interaction / [OR PARAM IRM MENU]**
		8989.51	ORPF ERROR DAYS	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF SHOW STATUS DESCRIPTION	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF REVIEW ON PATIENT MVMT	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF ACTIVE ORDERS CONTEXT HRS	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF DEFAULT PROVIDER	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF SHOW LAB #	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF CONFIRM PROVIDER	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF RESTRICT REQUESTOR	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF GRACE DAYS BEFORE PURGE	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF AUTO UNFLAG	[OR PARAM ORDER MISC] Miscellaneous Parameters
		8989.51	ORPF INITIALS ON SUMMARY	[OR PARAM PRINTS (HOSP)] Print Parameters for Hospital
		8989.51	ORPF SUMMARY SORT FORWARD	[OR PARAM SUMMARY REPORTS] Summary Report Parameters

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	8989.51	ORPF WORK SUMMARY SORT	[OR PARAM SUMMARY REPORTS] Summary Report Parameters
	8989.51	ORPF DAILY ORDER SUMMARY DEVC	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
	8989.51	ORPF PRINT CHART COPY SUMMARY	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
	8989.51	ORPF PRINT DAILY ORDER SUMMARY	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
	8989.51	ORPF SETUP ACTION	**Not used / marked for deletion**

Old Location	Old Name	New Location	New Name	Edit Thru Option
		8989.51	ORPF EXPAND CONTINUOUS ORDERS	[OR PARAM CHART COPY] Chart Copy Parameters
		8989.51	ORPF CHART COPY HEADER	[OR PARAM CHART COPY] Chart Copy Parameters
		8989.51	ORPF CHART COPY FORMAT	[OR PARAM CHART COPY] Chart Copy Parameters
		8989.51	ORPF CHART COPY FOOTER	[OR PARAM CHART COPY] Chart Copy Parameters
		8989.51	ORPF CHART COPY PRINT DEVICE	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORPF PRINT CHART COPY WHEN	[OR PARAM CHART COPY] Chart Copy Parameters
		8989.51	ORPF PROMPT FOR CHART COPY	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORPF CHART SUMMARY SORT	
		8989.51	ORPF SERVICE COPY HEADER	[OR PARAM SERVICE COPY] Service Copy Parameters
		8989.51	ORPF SERVICE COPY FORMAT	[OR PARAM SERVICE COPY] Service Copy Parameters
		8989.51	ORPF SERVICE COPY FOOTER	[OR PARAM SERVICE COPY] Service Copy Parameters
		8989.51	ORPF SERVICE COPY DEFLT DEVICE	[OR PARAM SERVICE COPY] Service Copy Parameters
		8989.51	ORPF SERVICE COPY PRINT DEVICE	Not used / marked for deletion
		8989.51	ORPF PROMPT FOR LABELS	OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORPF WARD LABEL FORMAT	[OR PARAM REQ/LABEL] Requisition/Label Parameters
		8989.51	ORPF LABEL PRINT DEVICE	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORPF LABEL SORT FIELD	
		8989.51	ORPF PROMPT FOR REQUISITIONS	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORPF WARD REQUISITION HEADER	[OR PARAM REQ/LABEL] Requisition/Label Parameters
		8989.51	ORPF WARD REQUISITION FORMAT	[OR PARAM REQ/LABEL] Requisition/Label Parameters
		8989.51	ORPF WARD REQUISITION FOOTER	[OR PARAM REQ/LABEL] Requisition/Label Parameters

8989.51	ORPF REQUISITION PRINT DEVICE	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
8989.51	ORPF REQUISITION SORT FIELD	
8989.51	ORPF PROMPT FOR WORK COPY	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
8989.51	ORPF WORK COPY HEADER	[OR PARAM WORK COPY] Work Copy Parameters
8989.51	ORPF WORK COPY FORMAT	[OR PARAM WORK COPY] Work Copy Parameters

Old Location	Old Name	New Location	New Name	Edit Thru Option
		8989.51	ORPF WORK COPY FOOTER	[OR PARAM WORK COPY] Work Copy Parameters
		8989.51	ORPF WORK COPY PRINT DEVICE	[OR PARAM PRINTS (LOC)] Print Parameters for Wards/Clinics
		8989.51	ORM TASKMAN QUEUE FREQUENCY	
		8989.51	ORCDLR URGENCIES	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORCD COMMON LAB MENU INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORW ADDORD INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE RESP INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD ACTIVITY INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE GENERAL INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE NURSING INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE SKIN INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE HEMODYNAMICS INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE TUBES INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD PTCARE OXYGEN INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD COMMON LAB INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD COMMON MED INPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD COMMON MED OUTPT	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD CONSULT SERVICES	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWD COMMON CLINIC	for original GUI(16 bit) will be deleted when Tuscaloosa stops use
		8989.51	ORWRP HEALTH SUMMARY TYPE LIST	GUI Health Summary Types
		8989.51	ORWT TOOLS MENU	GUI Tool Menu Items
		8989.51	ORWCH BOUNDS	**No user interaction**
		8989.51	ORWCH WIDTH	**No user interaction**
		8989.51	ORWCH COLUMNS	**No user interaction**
		8989.51	ORWOR CATEGORY SEQUENCE	**No user interaction**

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		Not used / marked for deletion
8989.51	ORWUH WHATSTHIS	
8989.51	ORWDQ ANI	Gui quick order params/no user access/[OR PARAM IRM MENU
8989.51	ORWDQ CARD	Gui quick order params/no user access/[OR PARAM IRM MENU
8989.51	ORWDQ CSLT	Gui quick order params/no user access/[OR PARAM IRM MENU
8989.51	ORWDQ CT	Gui quick order params/no user access/[OR PARAM IRM MENU

Old Location	Old Name	New Location	New Name	Edit Thru Option
		8989.51	ORWDQ DISPLAY NAME	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ IV RX	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ LAB	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ MAM	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ MRI	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ NM	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	**ORWDQ O RX**	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ PROC	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ RAD	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ UD RX	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ US	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ VAS	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ XRAY	Gui quick order params/no user access/[OR PARAM IRM MENU
		8989.51	ORWDQ CATEGORY SEQUENCE	**No user interaction / [OR PARAM IRM MENU]**
		8989.51	ORWOR WRITE ORDERS LIST	**No user interaction / [OR PARAM IRM MENU]**
		8989.51	ORWOR COVER FRTRIEVAL	**No user interaction / [OR PARAM IRM MENU]**
		8989.51	ORWOR DISABLE ORDERING	**No user interaction / [OR PARAM IRM MENU]**
200/125.1	PROBLEM SELECTION LIST	200/125.1	PROBLEM SELECTION LIST	[GMPL USER LIST] Preffered Problem Selection List

Namespace key:

ORLP=	TEAM LISTS	ORPF=	FROM 100.99	

ORB*	NOTIFICATIONS	ORK*	ORDER CHECKS
LR =	LABORATORY	RA=	IMAGING
OR =	ORDER ENTRY	ORQQ=	GUI & LISTMANAGER
ORM =	MESSAGING SYSTEM	ORW=	GUI
ORCH=	LISTMANAGER TABS		

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